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THIS REPORT CONTAINS A HISTORY OF RESEARCH CONCERNED WITH THE AUSTRALIAN LANGUAGES, AND DESCRIPTIONS OF THE 228 LANGUAGES IN THE AUSTRALIAN MACRO-PHYLUM. (THE REPORT IS PART OF A SERIES, ED 010 350 TO ED 010 367.) (JK)

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Title

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INDO-PACIFIC FASCICLE SIX

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LANGUAGES OF THE WORLD: INDO-PACIFIC FASCICLE SIX

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(with an Appendix by Kenneth L. Hale)

6.0. History of research on Australian languages

6.1. Phylic families in the Australian Macro-phylum and list of all Australian languages

6.2. Phonological diversity

6.3. Structural detail

The research reported herein was performed pursuant
to a contract with the United States Office of Education,
Department of Health, Education, and Welfare.

HISTORY OF RESEARCH

6.0. Linguistic research concerned with aboriginal languages in Australia turns out to be surprisingly small when it is compared to research devoted to cultures of the Australian aborigines. John Greenway's Bibliography of the Australian Aborigines (Sydney, 1963) is based on a total of 22,638 items in all, and is said to be 'complete (as the word is defined below) from the first references to the Australian continent to the death of Albert Namatijira' (p.x). For books and articles alone (articles in periodicals other than newspapers), the number of items totals 10,283; it is these that are published, while the greater number of bibliographic items, including manuscripts, await publication. This bibliographic mountain is eloquent testimony of the interest aroused in everything pertaining to Australia--but least of all to anything having to do with the hundreds of different languages spoken by people whose forebears were the first human beings to cross Wallace's line and wander into an uninhabited island-continent. Perhaps less than a tenth of the bibliographic items published by Greenway include some aspect of Australian languages in their scope. And from this relatively meager total, a mere score of bibliographic items exhaust the number of works that give adequate descriptions of individual Australian languages.

The following list identifies what O'Grady and Hale consider to be the 23 fullest treatments of Australian languages. This list is arranged and labelled--with Roman numeral index for language families--in the same fashion as the complete list of Australian languages, below.

A. Capell, Tiwi Grammar (ms); Family I.

---------, Some Linguistic Types in Australia (1962); contains grammars of Iwaidji (Family II), Dalabon (Family VII), Karadjeri (Family XXIX), and Walpari (Family XXIX).

---------, Maung Grammar (ms); Family II.

---------, Kakadu Grammar (ms): Family III.

---------, Nunggubuyu Grammar (ms); Family IX.

---------, Groote Eylandt Grammar (ms); Family X.

---------, Larakia Grammar (ms); Family XVIII.

---------, Thurawal Grammar (ms); Family XXIX.

---------, and B. Howe, Gobabingo Grammar (ms); Family XXIX.

W. H. Douglas, An Introduction to the Western Desert Language of Australia (1958); the most adequate grammar of an Australian language published up to 1960; Family XXIX.

J. R. B. Love, Worora Grammar (ms): Family XXVII.

H. Nekes and E. A. Worms, Nyulnyul Grammar (in Australian Languages, Micro-Bibliothece Anthropos vol. 10, Freiburg and St. Paul, 1953); Family XXVIII.

Oates, Gunwinggu Grammar (ms); Family VII.

G. O'Grady, Nyangumarda Grammar, ms Ph.D. dissertation, Indiana University, 1963; Family XXIX.

S. H. Ray, Mabuiag (Family XXIX) and Miriam (unrelated) grammars, in

Reports of the Cambridge Expedition to Torres Straits, vol. 3, 1907.

J. G. Reuter, Dieri Grammar (ms); Family XXIX.

W. E. Roth, Pittapitta Grammar (in Ethnological Studies Among the North-West-Central Queensland Aborigines, 1897); Family XXIX.

W. E. Smythe, Elementary Grammar of the Gumbaiŋgar Language, 1948; Family XXIX.

------------, Bandjalang Grammar (ms); Family XXIX.

T. G. H. Strehlow, Aranda Phonetics and Grammar, 1945; Family XXIX.

In addition to the above, there are also the following sketches, some of which may be among those intended to be included by S. A. Wurm in his 'a little over 20 aboriginal languages described in detail':

C. W. Schürmann, A Vocabulary with included grammar of the Parnkalla Language, 1844; Family XXIX.

C. G. Teichelmann and C. W. Schürmann, Outlines of a Grammar...of the Aboriginal Language of South Australia, Adelaide, 1840; the language here treated is Kawuna, Family XXIX.

G. F. Moore, Diary of an Early Settler in Western Australia, 1830-1841, Sydney, 1884; contains a grammar of Wadjuk, Family XXIX.

G. Taplin, the Narrinyeri, 1878, Family XXIX.

R. M. Trudinger, Grammar of the Pitjantjatjara Dialect, Central Australia, Oceania 13.205-224 (1943); Family XXIX.

Botany Bay settlement was established in 1788. The data recorded during the ensuing century, both on Australian and Tasmanian languages, display unevenness in quantity and quality alike. Almost all of the transcriptions are marred by phonemic underdifferentitation. English speakers in general failed to distinguish between apico-alveolar and apico-domal articulations (though they mostly succeeded in keeping lamino-dentals--as /ṱ/--distinct from apico-alveolars--as /t/); and German speakers tended to complement them by correctly diagnosing the former distinction, but failing to hear the latter. With Australian vowels, German and Italian speakers were on relatively safe ground because of their orthographic conventions, but English speakers notoriously used the graph u to represent indiscriminately [a], [u], or even [yu].

Prephonemic though the published materials of the 19th century are, they remain the only record of some presently extinct languages of the southeastern third of the continent. Conspicuous among early 19th century works are the grammars and extensive dictionaries for Kawuṇa and Pankaḷa of South Australia, published by Teichelmann and Schürmann in 1840 and 1844 respectively; Moore's dictionary of Wat^{y}uk, spoken around Perth in Western Australia; and Horatio Hale's grammars of two New South Wales languages, published in 1846. In 1875 Ridley published his Kamilaroi and Other Australian Languages, followed in 1878 by Taplin's The Narrinyeri. In the same year there appeared Brough Smyth's quantitatively impressive but qualitatively appalling account of the languages of Victoria.

A new era was ushered in by Edward Curr--the first era of survey linguistics; Curr's monumental survey by questionnaire embraced virtually all languages which have since become extinct. In 1886 he published in four large volumes versions of his 120-item lexical list in nearly 500 languages and dialects--thereby anticipating lexicostatistics by nearly 70 years.

In 1891 H. Kempe brought Central Australian languages to notice, and was followed in this field by the elder Strehlow, whose unpublished Aranda Dictionary--greatly enriched through the continuing efforts of his son, T. G. H. Strehlow--far exceeds in scope and magnitude other dictionaries of Australian languages, save perhaps only that being prepared for the Warburton Ranges dialect of the Western Desert family-like language by Wilfrid H. Douglas. In 1892 Fraser published 'An Australian Language.'

W. E. Roth provided useful materials on Western Queensland languages in 1897, and in 1901 and again in 1904 Matthews substantially increased knowledge of southeastern Australian linguistic structures. Two works published in 1903--Roth's Kok-Yimidir Grammar and Hey's Nggerikudi Grammar--served to highlight the languages of Northern Queensland. In 1908 Planert brought out his Dieri Grammatik, and in the same year Ray published on the Mabuiag and Miriam languages of Torres Straits, as well as on languages of the adjacent New Guinea and Australian mainlands.

Linguistic classifications were provided by Schmidt in 1919, by Kroeber in 1923 (and subsequently also by Loukotka), but these classifications could not comprehend the northern and northwestern parts of the continent, then still a linguistically unexplored terra incognita. The publication of the results of research in these areas--in particular the Kimberley District--was initiated by Love in 1931, followed by Elkin in 1936. In 1937 Nekes produced a treatise on the pronouns of Nyulnyul and related dialects, while collaborating with Worms for the eventual publication (in 1953, as one of the Micro-Bibliotheca Anthropos series) of their massive Australian Languages.

After Curr (see above), the second new era for Australian survey linguistics was inaugurated by Capell in the 1930's. His painstaking survey of over 90 languages spoken in the north and northwest, plus several depth studies, brought to light the existence of a diversity in linguistic structures not previously suspected for Australia. Capell's major publications include A Classification of Languages in North and Northwest Australia (1940), Languages of Arnhem Land (1942), A New Approach to Australian Linguistics (1956), and Some Linguistic Types in Australia (1962).

Maps of tribal distributions were compiled by Davidson and subsequently by Tindale (1940); the latter was used as the basis for Greenway's map of 1960, reprinted in his more recent Bibliography (1963).

Further grammatical studies were produced by T. G. H. Strehlow for Aranda (1945) and by Smythe for Gumbaiŋgar of northeastern New South Wales (1949). During the last quarter century, research has also been carried forward by R. M. and C. Berndt, McConnell, Trudinger, Healey, Oates, Petri, Odermann, Penrice, Meggitt, Hiatt, Court, and Hercus. Much of the linguistic data recorded by these and other scholars remains unpublished. For the extinct Tasmanian, the standard source is Pater Schmidt's Die Tasmanischen Sprachen (1952). Probably the best description of an Australian language yet published is Douglas' An Introduction to the Western Desert Language of Australia (1958).

During the last decade--the third era of survey linguistics--Wurm carried out extensive fieldwork in the east, O'Grady in the west, and Hale in the center, west and northeast. Dixon is currently working on the languages of the Queensland Rain Forest, and linguists under the auspices of the Summer Institute of Linguistics are devoting attention to Burera (Arnhem Land), and Bandjalaŋ (New South Wales), as well as languages of southern Cape York Peninsula.

In general, this historical sketch shows that the description of Australian languages, so far, has been carried on by academicians and others who have their home bases in Australian institutions; exceptions to this generalization are infrequent (e.g. the work of Horatio Hale in the 19th century and that of Kenneth Hale, more than a century later, were both sponsored by American institutions). Conversely, the few major genetic and typological considerations of the linguistic situation in Australia as a whole have been contributed by scholars who are not Australians (except Capell), and who did not have opportunity to describe any of the hundreds of Australian-Tasmanian languages (except Schmidt). The non-Australian scholars who have attempted to summarize Australian descriptive linguistics cultivated for the most part by Australians include an Austrian (Schmidt), an American (Kroeber), a Czech (Loukoutka) and a Swede (Holmer). None of these summarizers is known to have even entered Australia, or to have discussed Australian linguistics with those who cultivated it. There may have been an advantage in this division of labor, for aboriginal languages were conveniently available for description to Australian scholars; and they were inconveniently far distant--in surface-travel time--for scholars living abraod. And the latter could view the Australian linguistic forest from their distant vantage point without being in danger of seeing only the trees, especially since relatively few of the trees in this linguistic forest had been described in any great detail.

A first conference attempting to combine the special insights obtainable from a close view by Australian-based scholars (O'Grady and Wurm) and an overview by Americans (C. F. Voegelin and F. M. Voegelin) took place at Indiana University's Arizona field station in the summer of 1962. The insights obtained from this meeting of minds is on-going, and is reflected in the present report which is prepared by much the same personnel (with O'Grady functioning as collaborator with C. F. and F. M. Voegelin, and with Wurm functioning as consultant; in addition, Hale not only worked as consultant for the present report but independently authored the Appendix to the report).

The first conference, that of 1962, brought consensus on terminology appropriate for separate Australian languages (often far-flung dialects of the same language), and on Australian language families (structurally almost identical in most of the island-continent, but lexically so diverse as to make reconstruction difficult); beyond the language family we agreed to use the usual term, linguistic phylum, for two or more language families that are remotely related; and, as already known, all but a few language families in

Australia-Tasmania are remotely related in one huge macro-phylum.

The problem faced in the 1962 conference was not to find new perspective for the Australian macro-phylum, but to gain preliminary understanding of

(1) the nature of the FAMILY-LIKE LANGUAGE in Australia--the nature of languages whose peripheral dialects show no greater cognate density than is found between separate languages in such language families as Uralic, Uto-Aztecan, or Indo-European; and

(2) the nature of the PHYLIC LANGUAGE FAMILY in Australia--the nature of families which exaggerate some of the characteristics expectable in language families generally (namely, in the magnitude of structural similarity), but which approximate the remoteness expectable in linguistic phyla--e.g. one of the twenty-nine language families of Australia includes languages which show no greater percentage of shared cognates than are shared by language families (including Uto-Azecan) in the Aztec-Tanoan phylum; or than are shared by language families in the Ural-Altaic phylum (including the Uralic, Turkic, Tungus, and Mongol families). The preliminary understanding gained on these two rather paradoxical situations in Australia is stated in the published report (Obtaining an Index of Phonological Differentiation, IJAL 29.4-28, 1963):

"We are accustomed, since Bloomfield's time at least, to accept the concept of a 'language' as a geographically distributed speech community having neighbor intelligibility but possibly lacking in intelligibility when speakers from the geographic extremes come together. The new criterion for 'language' is neighbor intelligibility, replacing the older criterion of mutual intelligibility for all speakers. (p. 24)

"In some Australian languages more than half of the words in dialect A are entirely different from the words in dialect Z (the geographical extremes): between A and Z, there is only 45 percent shared vocabulary. Even though there is neighbor intelligibility between communities A and B, B and C, and so on to Y and Z, it would be misleading to use the simple term 'language' for a speech community whose cognate density lies in the middle range of what characterizes a 'language family' for the rest of the world (cp. the unrestricted dictionary comparisons which yield cognate density ranging from 21 percent between Southern Paiute and an Aztec language, to 57 percent of shared cognates between two languages in the same branch of Uto-Aztecan). (p. 24)

"Something special is going on in Australia. To draw attention to this we use the term FAMILY-LIKE LANGUAGE for Australian languages having neighbor intelligibility but otherwise having as low a cognate density as exists between languages in the usual language families of the world. (p. 24)

"The 'something special' that may account for the FAMILY-LIKE LANGUAGES in Australia is more often encountered in cultural anthropology than in linguistics--for one example...what is called in Northern India the 'social field'--a cultural unit made up of exogamous villages: the villagers enjoy as much interaction within the 'social field' as within the village in which they live at the moment, since every woman marries out of the village of her birth (where some of her consanguine kin continue to live) to go to the village of her husband (where most of her affinal kin live), there to have children whose consanguine kin reside in more than one village. (pp. 24, 25)

"The FAMILY-LIKE LANGUAGES of Australia are found less often in areas of abundant rainfall than in desert areas. At times of water shortage in desert areas, the speakers of a FAMILY-LIKE LANGUAGE may travel a hundred miles or so looking for water holes and encountering other speakers of the same language--the same in structure but with many different words for the same referent. (p. 25)

"...the culture of multilingualism is so widespread in Australia as to be virtually universal. The culture of multilingualism may also have some bearing on the 'language family' shown by x's in the sketch map below--hereafter called a PHYLIC LANGUAGE FAMILY. This PHYLIC FAMILY includes two different widely separated languages with a cognate density of 8 percent! (But in New Guinea, the term MICRO-PHYLUM is used when the paired densities of two languages range from 15 to 35 percent; an 8 percent cognate density would be diagnostic of a MACRO-PHYLUM in New Guinea). (p. 25)

"The linguistic picture differs even if the culture of multilingualism turns out to be exactly the same in both Australia and New Guinea. In New Guinea, the different language families within a phylum show not only low cognate densities but also great structural diversity. In Australia, the different FAMILY-LIKE LANGUAGES within the PHYLIC FAMILY show low cognate densities between languages at the geographic extremes, but reasonable cognate densities between neighboring languages and--in either case--much homogeneity in structure. Hence, there is a certain analogy between FAMILY-LIKE LANGUAGE, on the one hand, and the PHYLIC LANGUAGE FAMILY on the other. (p. 25)

"For the latter (phonological differentiation), the general interval index is the same for the phylum (for the whole of Australia) as for one language family (spoken in most of Australia). (p. 28)

"This general interval index of about a score falls within the range of the language families treated in this paper... But both the Athapaskan family and the Uto-Aztecan family show a GENERAL INTERVAL exceeding a score (22 and 23 respectively). Had we computed the GENERAL INTERVAL for the Aztec-Tanoan phylum it would have been about 30--at least one-third greater than the score of the phylum for Australia as a whole." [That is to say, all twenty-nine language families taken together in one Australian phylum are much less differentiated phonologically than are two language families in one American Indian phylum.] (p. 28)

EXTERNAL RELATIONSHIPS OF AUSTRALIAN LANGUAGES WITH NON-AUSTRALIAN LANGUAGES

6.01. Attempts at establishing a genetic relationship between Australian languages and those of likely neighboring or not-too-distant areas--whether Dravidian, Andamanese, Malayo-Polynesian, Papuan, or even Tasmanian--have so far fallen far short of actual demonstration. We cite two reasonable statements, typical of others. The first is by Mathew (1899): "Australia was first occupied by a people, a branch of the Papuan family... They came from the north, in all likelihood from New Guinea... The un-Papuan... constituents being Dravidian and Malay [read Austronesian]... Of these the Dravidian was the first to arrive... Mainly from linguistic evidence I incline to think that the people, who for convenience may be called Dravidians, first touched on the north-east coast of Queensland."

This opinion, in a slightly expanded form, is quoted over half a century later, with the comment that it is essentially opinion of the modern writer, Nils M. Holmer (On the History and Structure of the Australian Languages, Lund, 1963, p. 99). The question, of course, is whether such a persistent opinion represents anything more than conjecture. The second statement--taken from Greenberg's unpublished memoranda and cited by George P. Murdock (Ethnology 3.123, 1964)--asserts that one linguistic phylum includes languages in Australia, Tasmania, and the Andaman Islands, as well as the so-called Papuan languages (but not the languages of the Dravidian family nor those of the Austronesian family--the only two families among those examined for remote relationship with Australian language families that have been more than slightly sampled in linguistic analysis and linguistic reconstruction). What is shared in the opinion expressed by Mathew in the last third of the 19th century and in the opinion attributed to Greenberg in the last third of the 20th century is that the Papuan languages are related genetically to the Australian languages.

INTERNAL RELATIONSHIPS
OF AUSTRALIAN-TASMANIAN LANGUAGES

6.02. If we begin with the twenty-nine phylic families that are remotely related in the Australian Macro-phylum and postpone mention of the Tasmanian languages and a few Australian languages which appear not to be includable in this Australian Macro-phylum, it is possible to contrast the (1) Cape York languages, spoken east of the Gulf of Carpentaria, with those (2) west of the Gulf of Carpentaria, and (3) those south and southwest of Cape York and of the Gulf of Carpentaria which account for most of the languages and most of the area of the island-continent.

The vast majority of the latter languages are typologically similar; in phonology, for example, they exhibit identical or closely similar consonant and vowel systems, and their permitted sequences of consonants and vowels (interphonemic specifications) are also closely similar, irrespective of the phylic family in which a particular language may be a member. But, as already mentioned, these phylic families are ultimately related in one macro-phylum. And there is no doubt that they share something like a single phonemic system (or a phonemic common core, with minor variations from language to language, and from family to family). Why then is it not possible to assume that their closely similar phonologies--their phonemic common core--represent common retentions from the proto phylum spoken long ago before the parental phylum differentiated into twenty-nine families, with each family further differentiating into numerous languages and countless dialects?

It is not possible to assume this because common retentions need to be attested by cognates, and cognates are insufficient or sparse or simply lacking to connect the different phylic families and to show that by and large their relatively undifferentiated structure represents common retention from the proto phylum. In lieu of the evidence which is not forthcoming from the evidence of cognates, an assumption of convergence is just as reasonable as an assumption of common retention to explain the structural similarities and identities found today. It is virtually impossible to calculate regular sound correspondences among the cognates which support the Australian phylum hypothesis, due to the sparseness of cognates in most of Australia covered by the twenty-nine remotely related phylic families, outside of the Cape York area and west of the Gulf of Carpentaria.

In the Cape York languages there is not so much apparent uniformity in consonant and vowel systems--not among the Cape York languages themselves, nor with other language families among the twenty-nine phylic families, nor even within the language family XXIX, of which the Cape York languages constitute a distinct subgroup. This typological lack of similarity is historically shallow however. This superficial diversity in phonologies is offset by considerable homogeneity in vocabulary--the presence of sufficient cognates among the Cape York languages to permit the reconstruction of a phonemic system for proto Paman which looks less aberrant than the phonemic systems of the Cape York daughter languages, as is shown in the Appendix, below (6.3). (Proto Paman is the parent language of most of the peninsular languages, constituting the Paman subgroup of family XXIX.)

No one has succeeded, so far, in finding evidence for relating any one of the twenty-nine phylic families (or all of them together, taken as the Australian Macro-phylum) with the languages formerly spoken in Tasmania. The Tasmanian languages were related to each other; indeed they were not very diversified. We might attribute the lack of diversification in Tasmanian to the small population, estimated at 5,000 at the time of first European contact. Since Australia and Tasmania rest on the same continental shelf, with little more than 30 fathoms' depth of sea separating them, it is conceivable that the Tasmanians walked into their island home when it was still a peninsular appendage of the mainland, perhaps hurried on their way by the Australians, newly arrived from the north.

We have less clear information and no explanation at all to account for a few other languages in Australia supposed to be unrelated to the twenty-nine phylic families in the Australian Macro-phylum, except in one case where the unrelated language is clearly classifiable as a Papuan language--the language called Miriam, spoken in eastern Torres Strait, which has served as a modest vocabulary donor to Mabuiag, a genuine Australian language spoken in western Torres Strait. If the evidence of physical anthropology is allowed to influence linguistic considerations (as it was, rather disastrously, in Meinhof's classification of some African languages), then the Barbaram language, spoken by pygmies or pygmoid people (in the Queensland Rain Forest) who look Tasmanoid, may have Tasmanian relationships even if they do not speak a Tasmanian language;

Birdsell and Tindale have declared the Barbaram to be physically Tasmanoid. We know nothing of Aniwan, spoken in northeastern New South Wales, except that it is supposed to be unrelated to the Australian Macro-phylum.

To state the matter in terms of coordinate groups that are not related (while all members within a coordinate group are related), there appear to be for native Australia-Tasmania five such coordinate groups:

Australian Macro-phylum, comprising twenty-nine phylic families;
Tasmanian languages and dialects, now extinct;
Miriam, an intrusive Papuan language spoken in eastern Torres Strait;
Barbaram;
Aniwan.

Tasmanian is very imperfectly known, despite Schmidt's efforts at collating available information in Die Tasmanischen Sprachen (1952). A corpus additional to the materials presented by Schmidt was deposited in recent years at Sydney University.

Estimates both of earlier Tasmanian population figures and of linguistic diversity vary greatly. Curr (1886) cites estimates of population for the whole of the island at the time of the arrival of the British in 1803 ranging from 'not exceeding 2,000' to '7,000 and upwards.' Whatever the size of the population may have been during the earlier part of the 19th century, 1876 saw the death of the last full-blooded Tasmanian, Truganini, a woman, who died at about 64 years of age. Evidently persons of mixed blood retained some knowledge of the language and culture for a few more decades: recordings of

Tasmanian songs were secured by means of Edison phonograph on Flinders Island in Bass Strait in the late 1890's. (These recordings were recently dubbed on to tape and are now deposited at the Australian Institute of Aboriginal Studies in Canberra.)

As to linguistic diversity, Curr provedes an indirect hint with his estimate of 'about twenty tribes,' some of which he named. Schmidt takes a more cautious tack and assembles vocabularies for five speech areas--North, Northeast, Mid-east, Southeast, and West--with 1,508 entries comprising a unified lexicon. On the basis of these materials he postulates two linguistic groups--Group I, including three 'languages' (Northeast, Mid-east, Southeast) opposed to Group II (North and West). Capell (1956) draws attention to the large discrepancies between word-lists obtained directly from earlier authors, and those assembled by Schmidt. Capell also points out resemblances between several Tasmanian and Victorian forms, and supposes these resemblances to represent borrowing by Tasmanian from Victorian languages. The latest examination of the Tasmanian sources (O'Grady's) leads to the classification of Tasmanian as a separate phylum and to the grouping of Tasmanian dialects identified by Schmidt into two rather than five related languages: Language 1, consisting of North Tasmanian; and Language 2, comprising dialects in the remaining four speech areas.

The intrusive Papuan language of Australia, Miriam, is spoken on the islands of Uga, Erub, Mer, Dauar, and Waier in eastern Torres Strait (collectively known as the Murray Islands). These islands are politically part of Queensland. Wurm suggests that Miriam may constitute a phylum with the Kiwai languages of the Western and Gulf Divisions of that part of New Guinea now administered by Australia.

The perspective of linguistic diversity among non-related groups outlined above is now linked to some observations on population density on the Australian mainland. Between 1788 and 1945, the total mainland population of aboriginal peoples dropped from an estimated 300,000 to 45,000. During the last two decades, the population trend has been reversed; the latest available figure is 47,000. This reversal has not, however, affected the number of Australian aboriginal languages, nor of individuals still speaking them; fewer and fewer individuals are speaking them. This is a result of the modern replacive bilingualism, in assimilation to Anglo-Australian culture. There may be a total of 40,000 speakers of approximately 200 Australian languages still spoken--about 200 speakers per language. By actual count, a few dozen of these languages, as for example Aranda and Walbiri in the Northern Territory, turn out to account for 90 percent of the total of 40,000 speakers. The Tiwi numbered a thousand in 1960 and were increasing (Goodale 1963). At the other end of the scale are the scores of languages represented by less than a half dozen speakers each.

SUBRELATIONSHIPS WITHIN THE AUSTRALIAN MACRO-PHYLUM

6.03. Subrelations may be calculated in any one of several ways, or in combinations of more than one way, if the scope of interest is broad enough to encompass at least the three following dimensions in historical linguistics:

(1) areal linguistics--concerned with diffusion between languages, as lexical borrowing of an Australian language from a Papuan language in Torres Strait (cited above); and also

(2) comparative method linguistics--concerned with genetic relationships among languages that are in sufficiently close relationship so that the number of cognates is dense enough to permit the reconstruction of all or most of the contrasts made in the consonant system and the vowel system of the parent language as in the reconstruction of Proto Paman cited in the Appendix (6.3, below); and also

(3) phylum linguistics--concerned with genetic relationships either among individual languages or else language families or reconstructed branches of a language family, as Proto Paman already mentioned; but in any case, phylum linguistics seeks to find more remote relationships which are supposed to be remote precisely because cognates are not dense enough to permit the reconstruction of all or most of the phonemic contrasts made in the parental phylum, even though a relatively low number of cognates may be reconstructed in their Proto Macro-Phylum form.

Research on Australian subrelationships has often been concerned with evidence that is incontrovertably acceptable for one of these dimensions but is interpreted as though it were a contribution within the scope of another dimension. All three eras of survey work among Australian languages, as identified above, are in need of reexamination and revision in consequence of the successive over-emphasis on the mere geographic distribution of languages in the first era; on the confusion of typological and genetic criteria in the second era; and in the third and present era, on the too exclusive concern with a single criterion — namely, evidence from a restriced vocabulary used to obtain cognate counts — for historical perspective. There is a virtue in the exclusive classificatory index used in the third era of linguistic survey work in Australia — a virtue fully appreciated and realized by Dyen in his linguistic survey work of Austronesian languages (IUPAL Memoir 19, January, 1965): clear-cut historical groupings stand out, even though co-occurring and known events that crosscut such groupings in the linguistic history are not mentioned. Much remains for future work in the single Austronesian language and in the twenty-nine Australian families.

For example, there remains the task of correlating Capell's typological boundary (determined by distinguishing prefixing languages from suffixing languages) with other structural detail and with reconstructions of families and branches of families in the northern area, characterized generally as the only structurally diverse part of Australia, and with the remainder of the island-continent characterized by structural homogeneity which is found, paradoxically enough, beside relative sparseness of shared cognates.

On the principle of doing one thing at a time, each era of survey work in Australia addressed itself to doing one main task (and on the whole accomplished its task well). Each accomplishment poses new problems for future work, just as each era faced difficulties peculiar to its time. In the third or present era, the survey work had to calculate percentages of shared cognates between lists obtained, without being able to determine how representative the lists were. These lists are non-pretentiously labelled by names for communalects--and are representative, at least, of the speech community (communalect) from which the list was obtained.

Classifications of Australian languages, so far, including those proposed by Schmidt in 1919 and by Capell in 1940, and by Holmer in 1963, are based largely on typological criteria. In the tentative classification offered in this report, no attempt is made to concatenate the typology-based observations with cognate counts. Virtually all attention is focused on cognate densities derived from comparison of the hundred items of a Swadesh-type lexical list in pairs of named communalects. The size of the lexical test list is restricted to a hundred rather than, say, to two hundred items, for a simple historical reason: for the most part, preceding linguistic surveys failed to provide sufficiently ample lists. Curr effectively predetermined the scope of any widely applicable list in 1886 by publishing a 120-item word-list obtained from several hundred communalects, often of now extinct languages. His materials are supplemented in particular by Capell's 600-item list in forty

Arnhem Land communalects, Wurm's lists for New South Wales and Queensland, Hale's lists for Central and Western Australia and Cape York Peninsula, O'Grady's lists for Western and South Australia, Strehlow's lists for Arandic, and lists provided for Western Desert dialects by Douglas and Day. In addition, for about a score of key languages, it was possible to consult published and unpublished dictionaries containing from one to four thousand entries.

The classification which follows is based on concerted teamwork carried out by Hale, Wurm, and O'Grady. Much of this linguistic survey work was done by Hale, who provided the list of twenty-nine phylic families. Wurm classified most of the eastern Australian languages; O'Grady most of the western Australian. In linguistically non-diverse areas, certain communalects, known to us by name only--through Tindale 1940 (hence also through Greenway 1960), or through recent discoveries--are classified by interpolation. Hence, although the newly contacted Tarpuntjari (The Sunday Times, Perth, November 17, 1963) are as yet linguistically unknown, we assign them tentatively to the Western Desert dialect chain which borders on the Tarpuntjari speakers on all sides. In the case of linguistically diverse areas, on the other hand, speech communities known to us by name only are listed under a separate category ('unclassified').

Criteria for classification are: cognate density less than 15 percent for different phylic families; 16-25 percent for different groups of the same phylic family; 26-50 percent for different subgroups of the same group; 51-70 percent for different languages or family-like languages of the same subgroup;

and over 71 percent for different dialects of the same language. These criteria are adhered to except under two conditions: (1) When the existence of a dialect chain (or family-like language) is strongly indicated in the data, but certain intervening links are lingustically unrecorded, geographically noncontiguous speech areas sharing somewhat less than 70 percent of cognates are nevertheless assigned to one dialect chain; (2) when it can be demonstrated that a given Australian language P has borrowed numerous test list items from X (a language of another phylic family or of another phylum) with the presumed result that structurally very similar Australian language pair P and Q do not share as much as the 16 percent of cognates normally necessary for their inclusion in the same phylic family, then members of such a pair are nevertheless listed as belonging to different groups of the same phylic family. The outstanding example of a communalect having the characteristics of P above is Mabuiag of western Torres Strait, which has evidently been in prolonged and intense contact with Miriam, its eastern Papuan neighbor, from which it has paradoxically borrowed eleven items of the non-borrowable 100-word test list.

In view of theories which have been advanced to the effect that the Australian languages of northern Cape York Peninsula have been profoundly influenced by Papuan, it is interesting to note that none of the recognizable Miriam loans in Mabuiag has in turn penetrated south into languages of the adjacent Australian mainland (e.g. Yadaikana, spoken almost at the tip of Cape York).

Many investigators have felt that the lexical retention rate in Australia is very low--lower than that of languages of the world generally. But Hale and O'Grady obtained a test list in Parnkalla in 1960 and checked it against a vocabulary published by Schurmann in 1844. The two lists showed almost total agreement (and the few disagreements may well be due to the fact that the Parnkalla language recorded in 1844 was representative of one dialect while the Parnkalla language recorded in 1960 was representative of a slightly different dialect).

PHYLIC FAMILIES IN THE AUSTRALIAN MACRO-PHYLUM, AND LIST OF ALL AUSTRALIAN LANGUAGES

6.1. In the complete list below, the number of each language or dialect according to Greenway's map is indicated in parentheses; languages or dialects not on Greenway's map simply appear without a parenthesized number. The complete list may be explicated by a preliminary summary which merely gives the Roman numeral index number of each language family, followed by a parenthesis which gives the number of separate languages known to be spoken in each family. The total of 228 separate languages is, accordingly, for all languages in the Australian Macro-Phylum, and does not include languages which belong to other phyla. (The latter are two Tasmanian languages, one intrusive Papuan language, and two remaining languages, Barbaram and Aniwan, which belong neither to the Tasmanian or the Papuan phyla, nor to the Australian Macro-phylum.)

I. Tiwian (1 lg)

II. Iwaidjan (4 lgs)

III. Kakaduan (1 lg)

IV. Mangenan (2 lgs)

V. Gunavidjian (1 lg)

VI. Nagaran (1 lg)

VII. Gunwingguan (11 lgs)

VIII. Bureran (2 lgs)

IX. Nunggubuyan (1 lg)

X. Groote Eylandtan (1 lg)

XI. Maran (3 lgs)

XII. Mangarian (1 lg)

XIII. Yanyulan (1 lg)

XIV. Tjingiluan (1 lg)

XV. Wambayan (1 lg)

XVI. Karwan (2 lgs)

XVII. Minkinan (1 lg)

XVIII. Larakic (2 lgs)

XIX. Wogatjan (1 lg)

XX. Garaman (2 lgs)

XXI. Djamindjungan (4 lgs)

XXII. Brinken (2 lgs)

XXIII. Nagumirian (1 lg)

XXIV. Mullukmullukan (1 lg)

XXV. Djeragan (5 lgs)

XXVI. Bunaban (2 lgs)

XXVII. Wororan (9 lgs)

XXVIII. Nyulnyulan (4 lgs)

XXIX. Pama-Nyungan (160 lgs)

The complete list below repeats the Roman numeral index number, and in addition specifies 'family' when a name refers to a language family; so also it specifies group and subgroup following criteria of shared cognate counts, where available, as indicated above; most importantly, it specifies languages and dialects.

This unified list represents a coordinated compilation of Salzner 1960, Greenway 1960, and Capell 1942, as well as recent fieldwork by Hale, Wurm, and O'Grady. Spellings of names are those given by Greenway (as first or only alternant, where available), with other alternants listed within parentheses. Dialectal relationship between two or more communalects is indicated by intervening hyphenation.

The Australian Macro-Phylum is classified below into twenty-nine phylic families, aggregating 502 named speech communities which constitute 228 discrete languages. These figures do not include the 117 'tribes' listed by Greenway for the Australian mainland which remain linguistically unclassified. Twenty-eight of the phylic families are concentrated into an eighth of the area of the continent, in the extreme north (Arnhem Land), and northwest

(Kimberley District). Some of these, populated as they are by a solitary language, are better referred to under the simple term 'family'. The twenty-ninth of the twenty-nine families or phylic families sprawls over seven-eighths of the Australian land mass and, in addition, occupies the islands of western Torres Strait to within 2,000 yards of the New Guinea coast. This large phylic family is classified into thirty-three groups comprising sixty-seven subgroups, representing a total of 160 languages or family-like languages--with several of the latter spoken in a score or more dialects.

Different phylic families or simple families are identified in the classification by Roman numerals; groups by capital letters; subgroups by lower case letters; and languages by Arabic numerals, when more than one language is enumerated under a particular cover-term.

I TIWIAN FAMILY

Tiwi (Wunuk)

II IWAIDJAN FAMILY

A. Iwaidjic Group

  a. Wargbi Subgroup

    Iwaidji (Jiwaidja, Iwaiji, Eiwaja, Eaewandja, Unalla, Limbakaraja)

  b. Arargbi Subgroup

    Maung (Maw, Managari)

B. Amaragic Group

    Amarag

C. Margic Group

    Margu

III KAKADUAN FAMILY

Kakadu (Katata, Karkadoo, Gagadu, Abedal)

IV MANGERIAN FAMILY

A. Mangeric Group

Mangeri

B. Uningangkic Group

Uningangk

V GUNAVIDJIAN FAMILY

Gunavidji (Gunabidji)

VI NAGARAN FAMILY

Nakara (Nagara)

VII GUNWINGGUAN FAMILY

A. Gunwinggic Group

a. Binin Subgroup

1. Gunwiggu- (Gunwingu, Gunwingo, Gunawitji, Witji, Kulunglutji, Kulunglutchi, Koorungo) Gumadir

2. Gundangbon

3. Muralidban

b. Girdimarg Subgroup

Gunbalang

B. Buanic Group

a. Bi Subgroup

Boun (Buan) -Dalabon

b. Bigur Subgroup

Ngalakan (Ngalagan, Nullakun, Nullikan, Nullikin, Ngalbon, Hongalla)

C. Ngandic Group

Ngandi

D. Rainbarngic Group

Rembarunga (Rainbarngo)

E. Djauanic Group

Djauan (Tjawen, Djauun, Jawin, Chauan, Adowen, Charmong)

F. Yangmanic Group

a. Nolgin Subgroup

Jungman (Yangman, Yungman, Yungmun, Yungmunni, Yungmanni, Yungmunee, Yungmunnee, Jongman)

b. Yibiwan Subgroup

Wardaman (Wadaman, Wartaman, Warduman, Waderman, Wordaman, Waduman)

VIII BURERAN FAMILY

A. Bureric Group

Barera (Burera, Bawera, Jikai, Tchikai) -Gunaidbe-Gudjalavia

B. Gorogonic Group

Gorogone

IX NUNGGUBUYAN FAMILY

Nunggubuji (Nunggubuyu, Nungubuju, Nungbuju, Nungabuyu, Nungabuya, Nugubuyu)

X GROOTE EYLANDTAN FAMILY

Groote Eylandt (Andilyaugwa, Ingura)

XI MARAN FAMILY

A. Maric Group

a. Gariyimar Subgroup

Mara (Marra, Leelawarra)

b. Nawariyi

Wandaran (Wandarang)

B. Alawic Group

Alawa (Allawa, Allua, Allowa, Alowa, Leealowa, Kallana, Allowiri, Allaura)

XI MANGARAIAN FAMILY

Mangarai (Mungarai, Mungerry)

XIII YANYULAN FAMILY

Janjula (Yanyula, Yanula, Anyoola, Aniula, Anula, Leeanuwa)

XIV TJINGILUAN FAMILY

Tjingilu (Tjinggili)

XV WAMBAYAN FAMILY

Wambaya (Wambaia, Wombya, Wom-by-a, Yumpia, Umbaia) -Kutandji

XVI KARWAN FAMILY

A. Karwic Group

Karawa (Karwa, Karrawar, Kurrawar, Korrawa, Leearrawa).

B. Wanyic Group

Wanji (Wanyi, Wanyee, Wanee)

XVII MINKINAN FAMILY

Mingin (Minkin, Myngeen, Minikin)

XVIII LARAKIAN FAMILY

A. Larakic Group

Larakia (Larrakia, Larrakeah, Larrakeeyah, Larrakiha, Laragia, Larragea, Larrekiya, Larreekeeyah, Larikia, Larrikia, Larrikiya, Larriquia)

B. Wunic Group

Wuna

XIX WOGATJAN FAMILY

Wogait (Wogatj, Wagaitj, Worgait, Worgite, Waggait, Waggite, Waggote, Waggate, Wagatsch, Waogatsch)

XX GARAMAN FAMILY

1. Garama
2. Murinbata

XXI DJAMINDJUNGAN FAMILY

1. Djamindjung (Jaminjang, Tjaminjun, Djamundon, Murinyuwen)
2. Jilngali
3. Ngaliwuru
4. Nungali

XXII BRINKEN FAMILY

1. Brinken (Marithiel, Marathiel, Berringin)
2. Maramanindji (Marimanindji)

XXIII NANGUMIRIAN FAMILY

Nangumiri (Nanggumiri, Nangimera, Nangimeri, Mariwunini, Nangiomera)

XXIV MULLUKMULLUKAN FAMILY

Mullukmulluk (Mullikmullik, Mollakmollak, Mallackmallack)

XXV DJERAGAN FAMILY

A. Gidjic Group

1. Gidja
2. Guluwarin
3. Lungga (Lunga, Loonga)

B. Miriwunic Group

1. Miriwun (Mirung)
2. Gadjerong (Kadjerong, Kadjeroen)

XXVI BUNABAN FAMILY

A. Bunabic Group

Bunaba (Bunapa, Punaba)

B. Gunianic

Gunian (Koneyandi, Konejandi, Kunian, Kunan)

XXVII WORORAN FAMILY

A. Ungarinyinic Group

1. Ungarinyin (Ungarinjin, Narrinyind) -Wilawila
2. Munumburu-Guidj
3. Wolyamidi (Woljamidi, Wolyamini, Molyamidi, Yamandil)

B. Wororic Group

1. Worora (Wororra, Wurara)
2. Mailnga
3. Unggumi (Ungami, Wongkami)

C. Wunambalic Group

1. Wunambal (Unambal, Wumnabal, Wunambullu)
2. Gambre
3. Bagu (Ba:gu) -Gwini (Gwi:ni, Cuini)

XXVIII NYULNYULAN FAMILY

1. Nyulnyul (Njul-Njul, Nyul-Nyul, Niol-Niol, Nyolnyol) -Bard (Barda, Bardi) -Djaberdjaber (Djaberadjaber) -Nimanbur (Nimanboru) -Djaui (Towahi, Tohawi, Ewenu, Ewenyoon) -Ngormbal-Djugun (Djukan, Jukan)

2. Jauor (Yauor, Yauera, Djauor)

3. Nyigina (Njikena, Njigina, Nyigini)

4. Warwa (Waːrwa, Warwai, Warrwai)

XXIX PAMA-NYUNGAN FAMILY

A. Southwest Group

a. Ngayarda Subgroup

1. Ngarla (Wanbarda, Ngurla, Ngirla, Ngala, Gnalla)

2. Nyamal (Njamal, Nyamel, Namel, Gnamo) -Widugari (Widagari, Widagaree, Weedokarry, Weedookarry)

3. Bailko (Bailgu, Balgu, Balgoo, Pulgoe, Boolgoo) -Pandjima (Panjima)

4. Kurama (Karama, Korama) -Jindjibandi (Indjibandi, Injibandi, Ingibandi, Yingiebandie)

5. Kariera (Karriara, Karriarra, Kyreara, Kaierra) -Ngaluma (Gnalooma, Gnalouma, Gnalluma)

6. Mardudunera (Mardudhoonera, Mardatunera, Mardathoni, Mardatuna, Maratunia)

7. Binigura (Binnigoora, Biniguru, Binnigora) -Tjuroro (Churoro, Chooroross, Chooraroo)

8. Noala

b. Kanyara Subgroup

1. Talandji (Tallainji, Talaindji, Talanji, Talanjee, Tallainga, Taloinga) -Buduna (Burduna, Budina, Budoona, Poordoona)

2. Bayungu (Baiong, Baiung, Biong)

3. Targari (Dargari, Tarkarri)

4. Wadiwangga

c. Mantharda Subgroup

1. Warienga (Warianga, Woorienga, Woorenga, Wariwonga, Warriwonga)

2. Tenma

3. Djiwali (Jiwali, Jivali)

d. Kardu Subgroup

1. Maia (Miah)

2. Inggarda (Jinggarda, Ingara, Ingarrah, Inparra, Kakarakala)

3. Malgana (Maldjana, Majanna) -Buluguda-Tamala-Watjandi (Watchandi)

4. Nanda (Yaw, Eau) -Amangu (Ying)

5. Muliara (Malleyearra, Meloria) -Widi (Cheangwa) -Wardal (Wajari) -Nugara-Bardimaya

6. Wadjeri (Wajeri, Waianwonga) -Kurduwongga

e. Nyunga Subgroup

Juat-Wadjuk (Whadjuk, Whajook, Yooard, Yooadda, Minalnjunga, Minnal-Yungar, Yungur) -Balardong (Ballardong, Ballerdokking, Waljuk, Toode-nunjer) -Pinjarup (Pinjarra) -Wiilman (Wheelman, Weel, Weal, Weil, Will, Jaburu) -Kaneang-Wardandi (Wadarandee, Wardandie, Kardagur) Pibelmen (Peoplemen, Bibulman, Bebleman, Meeraman, Nurram, Bibbulmun) -Minang (Minung, Meenung, Mearn-anger) -Koreng (Kuriny, Corine, Qualup) -Nyakinyaki (Njakinjaki, Kokar, Karkar, Kikkar)

-Wudjari (Widjara, Warangoo, Warranger, Warrangle, Ngokwurring, Ngokgurring, Nonga,Nunga, Yunga, Daran)

f. Mirniny Subgroup

  1. Mirning (Mirniñ, Mining, Meening, Wanbiri, Warnabirrie, Warnabinnie, Wanmaraing, Yirkla, Ikala, Ikula) - Ngadjunma (Bardojunga) - Kalarko (Malba)

  2. Kalamai (Takalako, Njindango, Natingero)

g. Wati Subgroup (Western Desert)

  1. Wanman (Warnman)

  2. Kardutjara-Pawututjara-Mandijildjara-Ibarga (Ibarrga, Ibargo) -Targudi (Targoodi) -Inawonga-Ngalawonga, Wirdinya (Wirdinja, Woordinya) - Mardo (Mardudjara) - Tjitiyamba (Tjitijamba) Madoitja (Wainawonga) - Konin-Ngadawongga (Ngadhawonga, Ngarawonga) -Waula (Ngaiuwonga) -Koara-Ngurlu-Maduwonga-Pini (Pirniritjara) -Tjalkadjara (Barduwonga) -Mount Margaret- Nana (Nganadjara) -Mandjindja (Mandjindjara, Manjinjiwonga) -Nangatatjara (Nangatadjara) -Walyen (Waljwan, Waljen) -Tjeraridjal-Murunitja (Moorooon) -Pindiini (Wonggai) -Ngalea (Ooldean, Ngalia) -Kokata (Gugada, Kukatha, Kukata, Kokatha, Koogatho, Kugurda, Koogurda, Koocatho, Kokit-ta, Kukatja, Maduwonga, Madutara) -Antakirinya (Andagirinja, Antakerrinya, Andekarinja, Antekarinja, Andrgrinji, Andigarina, Andingiri, Antigerinya, Andjiringna, Unterrgerrie, Tangara, Yandairunga, Mbenderinga, Madutara,

Aldolinga, Andekerinja) -Jangkundjara (Jangundjara, [illegible], Jankunzazzara, Wirtjapokandja) -Pitjantjatjara (Pitjandjara , Pitjandjadjara, Pitjindjatjara, Pitkindjara, Pitjindjiara, Pitjanzazara, Wongapitjira, Wongapitcha) -Warburton Ranges -Ngadatjara (Ngadadjara) -Kukatja (Kukacha, Luritja, Luritcha, Loritja, Loritcha, Lurritji, Aluridja, Loorudgie, Loorudgee, Juluridja, Maduntara, Maiulatara) -Jumu-Pintubi (Bindibu, Pintupi, Bindabu) -Tarpuntjari-Gogoda-Julbre (Yulbaridja) -YuḷapaRit^{y}a

h. Marngu Subgroup

1. Nyangumarda (Njangamada, Nyangamada, Nangamada, Nangamurda) -Bedengo (Pedong, Peedong, Pidunga, Peedona, Pardoo; Paḷaṭoŋ)
2. Karadjeri (Garadjeri, Karadhari)
3. Mangala (Manala, Minala)

i. Ngarga Subgroup

1. Walmanba (Walmala)
2. Walbiri (Walpari, Waibry, Wailbri, Wolperi, Wolpirra, Ilpira, Ilpirra, Ilpara, Elpira)
3. Ngardi
4. Wanayaga (Woneiga)
5. Ngalia (Ngallia, Nambuda)

j. Ngumbin Subgroup

1. Mudbura (Mudbara, Mudburra, Moodburra, Mootburra)
2. Gurindji

3. Djaru (Jaruru, Jaroo) -Waringari (Waiangara) -Nyiniñ (Njining)
4. Malngin (Malgin)
5. Ngarinman (Airiman, Ngaiman, Ngaimmun, Ngraimun)
6. Bunara (Boonarra)
7. Tjiwarliñ-Wolmeri (Walmadjari, Warmala, Wulumari, Wolmera, Walmaharri, Wolmaharry)

k. Nangga Subgroup

Wirangu (Wirrung, Wirrunga, Warrangoo)

l. Yura Subgroup

1. Nawu (Nauo, Nawo, Naua, Nowo, Growoo, Battara)
2. Pangkala (Pankarla, Parnkala, Bangala, Banggala, Bahanga-la, Pankalla, Punkalla, Bungela, Bungeha, Kortabina)
3. Kuyani ((Gujani, Kujani, Kuyanni, Kwiana, Kooyiannie, Cooyiannie, Kooyeeunna, Kooteeuna, Koonarie)
4. Wailpi (Adnyamathana, Nuralda, Binbarnja, Kanjimata, Anjimatana, Benbakanjamata, Anjiwatana, Anjamutina, Anyamatana, Unyamootha, Kudnamietha, Kutchnamoota, Keydnjamarda, Mardala, Mardula, Wipie, Umbertana, Nimbalda, Nimbaldi, Nimalda)
5. Jadliaura (Yadliura, Arabatura, Wonoka) -Nukuna (Nukunu, Nuguna, Nukunnu, Nookoona, Noocoona, Nokunna , Pukunna, Wongaidya, Tyura, Doora, Warra) -Ngadjuri (Wirameyu, Manuri, Ngadhuri, Ngarluri, Aluri, Alury, Eeeleeree, Wirameju, Wirrameyu, Wirramayo, Wirramaya, Wiramaya, Wirra, Weera, Eura, Manu, Monnoo,

Manuley) -Kaurna(Kaura, Coorna, Koornawarra, Nganawara, Kurumidlanta, Milipitingara, Widninga, Winnaynie, Meyu) -Narangga (Naranga, Nanunga, Narranga, Narranggu, Narrangu, Adjahdurah, Turra)

B. Warumungic Group

Warumungu (Waramanga)

C. Wakayic Group

Wakaya (Wakaja, Waggaia, Wagai, Waagai, Waagi, Warkya, Worgaia, Worgai, Workia, Leewakya, Ukkia)

D. Mayapic (Wanamaric) Group

1. Maykulan (Maikulung, Mygoolan, Mykoolan, Micoolan, Mikkoolan, Maikulan)
2. Wanamara (Wunamara, Wunumara, Woonamurra, Unamara, Oonoomurra)
3. Mayapi (Maiabi, Myabi, Miappe, Myappe, Miubbi)

E. Arandic Group

a. Artuya Subgroup

Kaititj (Kaititja, Kaitije, Kaitije, Katitja, Katitcha, Katitya, Kaitish, Kaddakie)

b. Urtwa Subgroup

1. Iliaura (Illiaura, Iljaura, Ilyuarra, Illyowra) -Akara-Eastern Aranda-Anmatjera (Unmatjera, Imatjera, Urmitchee) -Western Aranda-Southern Aranda (Pirdima) -Andakerebina (Undekerebina,

Walwallie, Williwilli, Yanindo) -Jaroinga (Jarionga, Yaroinga, Yarroinga, Yorrowinga, Yarrowin)

2. Lower Aranda

F. Kalkutungic Group

Kalkutung (Kalkadung)

G. Yandic Group

Janda (Yanda)

H. Yalarnngic Group

Jalanga (Yalarnnga, Yellanga, Yelina)

I. Warluwaric Group

Warluwara (Maula, Walookera, Wolga, Wollegara, Wlookera, Yunnalinka)

J. Pittapittic Group

1. Ulaolinya (Yoolanlanya)
2. Wangkadjera-Pittapitta (Pitapita, Bitta Bitta) -Kungkalenya (Kungkalenja, Kungkulenje, Koonkodenya, Kiomkoolenya, Koonkalinya) -Karanya (Karanja, Kurrana, Mooraboola, Moorloobullo, Ooloopooloo, Ngulubulu) -Rakkaia (Rukkia) -Ringuringu (Ringoringo, Ringa Ringa, Ringa Oringaroo) -Mayuli (Majuli, Miorli)

K. Mitakudic Group

Mitakudi (Mittaka, Maithakari, Maidakadi, Maitakudi, Maytagoori, Mythugadi, Mythuggadi, Mythaguddi, Mittagurdi, Mitagurdi, Mitakoodi, Mitroogoordi)

L. Arabanic Group

Arabana (Arabuna, Arrabunna, Arrabonna, Arapani, Urapuna, Urabuna, Urabunna, Ngarabana, Rabuna, Wangarabana, Wongkurapuna, Wangarabunna) -Wongkanguru (Wangkanguru, Wongkongaru, Wonkanguru, Wonkonguru, Ongkonguru, Wonkaooroo, Wonggongaru, Wonkongaru, Wonkaoora, Wongonooroo, Wonkongnuru, Wonkagnurra, Wychinga) -Wongkamala (Wonkamudla)

M. Dieric Group

a. Karna Subgroup

1. Dieri (Tirari, Diari, Diyeri, Dieyerie, Deerie, Dieyrie, Dthee-eri) -Jandruwanta (Yandruwunta, Yantruwunta, Jendruwonta, Yandrawontha, Yanderawartha, Yanduwulda, Endawarra) -Ngameni (Gnameni, Ngaminni, Ngnaminni, Ahminnie, Uminnie, Agaminni, Awmani) -Karanguru (Karangura, Kurangooroo) -Jeljendi (Jeljujendi, Yelyayendi, Yarleeyandee)
2. Pilatapa (Piladapa, Pillatapa, Pulladapa, Berluppa, Pilliapp)
3. Jauraworka (Yauroworka, Yarrawaurka, Yaurorka, Yaurawakka, Jaurorka, Yerawaka, Yowerawoolka, Yowerawarrika)
4. Karendala (Kurnandaburi, Kunandaburi) -Kungadutji (Kungaditji, Kungarditchi, Kunatachee) -Kulumali (Ngulangulandji) -Bidia (Birria, Piria) -Marulta (Manula) -Karuwali (Karawala, Kurrawulla, Karorinje)

b. Ngura Subgroup

1. Punthamara (Bunthomarra, Buntamara, Banthamurra, Bunthaburra) -Ngandangara(Eromarra)
2. Kalali (Kullali, Kullally) -Bitjara (Bithara) -Tereila (Thiralla) -Wongkumara (Wankgumara, Wonkamara, Wonkomarra, Wonkamarra, Wonkamura, Wonkamurra, Wonkubara) -Ngurawola
3. Badjiri (Baddyeri, Byjerri, Baderi, Poidgerry, Badjedi)

c. Yalyi Subgroup

Karenggapa (Karrengappa, Kurengappa) -Wadikali (Wadigali) -Maljangapa (Malyangapa, Maljangaba, Maljangapa, Malyanapa, Mulyanapa, Mulyanappa, Milyauppa, Muliaarpa, Malynapa, Malyapa, Nalyanapa, Multyerra)

N. Darling Group

Kula (Kurnu, Guerno, Kornu, Cornu, Koono, Kuno) -Parundji (Paruindi, Paruinji, Parooinge, Barungi, Barinji, Bahroonjee, Barongee, Barrengee, Barunga) -Naualko (Ngunnhalgri, Unelgo, Bungyarlee, Milpulko, Mailpurlgu) -Wandjiwalku (Wanyuwalgu, Wanjiwalku, Weyneubulkoo, Wonipalku, Wanyabalku, Wonjimalku, Pono) -Wiljakali (Wilyakali, Wiljagali, Wilya, Willo) -Bagundji (Barkindji, Barkinji, Barkungee, Bahkunji, Bahkunjy, Parkungi, Parkengee Bakanji, Bakandi, Bargunji) -Barindji (Barrengee, Berriait) -Danggali (Dangali, Danggadi, Tungarlee, Tongaranka)

O. Narrinyeric Group

a. Korni Subgroup

Tanganekald (Tenggi, Tangane, Tanganalum, Tunga, Thunga, Thungah, Milmenrura) -Jarildekald (Jaralde, Yarilde, Yaralde, Yarrildie, Narrinyeri) -Portaulun (Warawalde) -Warki (Koraulun, Warkend) -Ramindjeri (Ramong, Raminyeri, Ramindjerar, Ramingara, Tarbanawalun) -Ngaralta (Wanaulum, Wanjakalde, Wanyakalde, Wunyakalde, Wanakald, Ngaralt, Ngaraltu) -Peramangk (Peramarma, Mereldi, Merildakald, Marimejuna, Wangarainbula)

b. Mirili Subgroup

Nganguruku-Ngaiawang (Ngaiwung, Ngaiyau, Aiawung, Aiawong, Iawung, Nggauaiyowangko, Birta, Pitta, Pieta, Peeita, Meru) -Erawirung (Eraweerung, Erawirrangu, Erawiruck, Yerraruck, Yirau, Yiran) -Ngawait (Nauait, Nanait, Niawoo, Ngawaijung, Narwejung, Eritark, Njawatjurk)

c. Ngult Subgroup

Maraura (Maroura, Marowera, Jakajako, Yaakoyaako, Waimbo) -Ngintait (Inteck) -Kureinji (Karin, Kerinma, Karinma, Karingma, Orangema, Keramin, Kemendok, Pintwa)

P. Kulinic Group

a. Kulin Subgroup

1. Djadjala (Meintangk, Meintank, Painbali) -Potaruwutj (Potangola, Woychibirik, Wepulprap, Yaran, Ţatiara, Tattayarra, Tyatyalli, Tyeddyuwurru, Wirigirek, Werekatyalli) -Ngarkat (Merkani, Merkanie, Mangkarupi, Buripung, Booripung, Boripar, Duwinbarap,

Doenbauraket, Tjakulprap, Jakalbarap, Jackalbarap, Jackegilbrab, Jakelbaluk, Ngeruketi, Wragarite) -Wotjobaluk-Warkawarka (Waikywaiky, Wekiweki, Mirdiragoort, Boorong) -Jarijari (Yariyari, Yarreyarre, Yerriyerri, Yerreyerre, Yairy-yairy, Yarikiluk, Yurra Yurra) -Latjilatji (Laitchi-Laitchi, Litchy-Litchy, Leitch-Leitchi, Latjoo-Latjoo, Lutchye-Lutchye, Latyoo-Latyoo, Litchoo-Litchoo, Laci-Laci, Laitu-Laitu, Laitu) -Muthimuthi-Jitajita (Bayangil, Itaita, Ithiithi, Eethaeetha, Yitha, Yitsa) -Wathiwathi(Watthiwatthi, Wattywatty, Wottowotti, Tatitati) -Wembawemba (Wambawamba, Womba, Weumba, Waamba, Yambayamba, Yamba) -Jaara (Yaara, Yaura, Yayauring, Jajaurung, Jajowurrong, Jajowrung, Jajowerong, Jajowrong, Jajoworrong, Jajowerong, Djadjawurung, Jurobaluk, Nirabaluk, Nirababaluk, Panyod, Knenknenwurro) -Jardwa (Yardwa-tyalli, Knindowurrong, Djappuminyon)

2. Wudjawuru
3. Taungurong (Thagunworong, Thaguwurru, Daguwuru, Taguniourung, Dhauhurtwurru, Ngooraialum, Nguralungbula, Mouralungbula, Gnurellean, Ooralim, Butherbaluk, Yawangillam, Yauungillam, Yowangillam) -Wurundjeri (Djadjuwuru, Wurunjeri, Wurrunjeri, Woiwurru, Woiworung, Woeworung, Woeewoorong, Wawurong, Wawoorong, Oorongir, Gunungwillam, Ngarukwillam, Kurunjang, Mortnoular, Woiwurung) -Bunurong (Boonurrong, Boonoorong,

Bunwurung, Bunwurru)

b. Drual Subgroup

1. Marditjali (Keribialbarap) -Buandik (Bungandaitj, Bungandaetch, Bungandaetcha, Pungantitj, Pungatitj, Pungandik, Booandik, Boandik, Boandiks, Borandikngolo, Burhwundeirtch, Bungandity)
2. Tjapwurong (Tyapwurru, Chaapwurru, Pirtkopannoot, Purteetchally, Punoinjon, Kolor) - Gurnditjmara (Gournditchmara, Kuurnkopannoot, Kirurndit) -Kirrea (Kirawirung, Kirraewuurong)

c. Gulyan Subgroup

Kurung (Kurungjangbaluk, Werang) -Kolakngat (Kolacgnat, Coligan, Kolijon) -Wathurung (Wathaurung, Wadthaurung, Wudjawurung, Witowurung, Witowurrong, Witawurong, Witowro, Witoura, Wuddyawurru, Wiityahuurong, Wooeewoorong)

Q. Kurnic Group

Bratauolung (Bradowoolong, Brataualung, Bratanolung, Tarrawarracka, Tarrawarrachal) -Tatungalung (Tatungolung, Tatoongolong, Tatunga, Bouliboul) -Braiakaulung (Brayakaulung, Braiakolung, Brayakau) -Brabralung (Brabrawurung, Brabrolung, Brabrolong, Brabriwoolong, Tirthung, Tirtalowakani) -Krauatungulung (Kroatungolung, Krowithunkoolo) -Bidawal, (Bidwill, Bidwelli, Biduelli, Beddiwell, Birdhawal, Bidwell, Birtowall)

R. Yotayotic Group

1. Jotijota (Yotayota)

2. Baraparapa (Burraburburaba, Barababaraba, Barrababarraba, Boorabirraba, Burappa, Burabura, Booraboora, Burapper, Karraba, Boort)

3. Jabulajabula (Narinari)

S. Bandjerangic Group

Bandjerang (Pangerang, Dadarawa, Bandjalang)

T. Yaitmathangic Group

Jaitmathang (Yaitmathang, Balangamida, Theddoramittung, Tharamirttong, Theddora, Dhudhuroa, Jandangara, Gundanora)

U. Yuin-Kuric Group

a. Yuin Subgroup

1. Thaua (Thawa, Thauaira, Thoorga, Thurga, Tadermanji, Tauaira, Guyangalyuin) -Walbanga (Bugellimangi, Thoorga, Thurga) -Wandanian (Tharumba, Kurialyuin)

2. Thurawal (Dharawa, Thurrawal, Turuwul, Turrubul, Turuwull) -Wodiwodi

3. Ngarigo (Ngaruku, Ngaragu, Ngundura, Ngarego, Ngarago, Garego, Ngarruga, Bemeringal) -Wolgal (Walgalu)

4. Ngunawal (Ngaonawal, Nungawal, Yarr, Ngennigenwurro, Yiilima))

5. Gandangara (Gundungurra, Gundaahmyro) -Daruk (Oharruk, Dharrok) -Kameraigal (Cameragal, Cammerraygal)

b. Kuri Subgroup

1. Darkinung (Darginyung)

2. Wanarua (Wonarua, Wonnarua, Wannerawa) -Awabakal (Awabagal, Lake Macquarie)
3. Worimi (Gadang, Kattang, Kutthung, Gutthan, Warrimee) -Birpai (Biribi, Birripai, Bripi, Birrapee, Birippi)
4. Ngamba-Ngaku-Dainggati (Dangadi, Danggetti, Dhangatty, Thangatti, Thangatty, Dangati, Tangetti, Burgadi, Boorkutti)
5. Jukambal (Yugumbil, Yukambal, Yukambil, Yookambul, Yookumbil, Ukumbil, Yookumble, Yurimbil, Ucumble, Ngarabal, Ngarrabul, Pregalgh)

V. Kumbainggaric Group

Kumbainggar (Kumbainggeri, Kumbaingeri, Kumbainggiri, Kombaingheri, Koombanggary, Koombangghery, Koombainga, Coombangree, Kombinegherry, Gumbainggar) -Banbai (Bahnbi, Ahnbi, Dandai)

W. Yegiric Group

Yegir (Jiegera, Yiegera)

X. Bandjalangic Group

1. Giabal-Kambuwal (Kaombal) -Kitabal (Kidabal, Kittabool, Kitapul, Gidjoobal, Kuttibul) -Kalibal-Minjangbal (Minyung, Minyowa, Boggangar) -Widjabal-Arakwal (Gundurimba, Tugurimba) -Badjelang (Bandjalang, Bunjellung, Bundela, Bundel, Watchee)
2. Yugumbal (Jukamba)

Y. Durubulic Group

1. Gowar (Ngugi)
2. Djendewal (Koenpel) -Nununkul (Noonukul, Moondjan)

Z. Waka-Kabic Group

a. Miyan Subgroup

1. Keinjan-Dungidjau-Jagara (Yagara, Turrubul, Yackarabul, Jinibara) Ngoera (Njalbo, Kaiabara) -Wakawaka (Wakkawakka, Waka, Woga, Wokka, Wogga, Wokkari, Nukunukubara, Wa)
2. Djakunda-Korenggoreng (Curanggurang, Guranggurang, Gooranggorang, Korrengkorreng)

b. Than Subgroup

1. Dalla (Mooloola, Dalleburra) -Batjala (Badjela, Patyala) -Kabikabi (Kabi, Karbi, Dippil)
2. Taribeleng (Taribelang, Tarribelung, Yawaim, Ginginburra, Wokka) -Tulua-Goeng (Goonine, Meeroni, Maroonee)

c. Kingkel Subgroup

1. Wadja (Wadjainggo, Waindjago, Wainggo, Maudalgo) -Kangulu (Kaangooloo, Khang, Kongulu, Kongalu, Konguli) -Bayali
2. Darambal (Tharumbal, Darawal, Tarumbal, Tarumbul, Charumbul) -Koinjmal (Guñmal, Kooinmerburra, Kungmal, Kungalburra, Mamburra)

AA. Wiradjuric Group

a. Main Subgroup

1. Wiradjuri (Wiradhuri, Wiraduri, Wiradjeri, Wiradhari, Wirraidyuri, Wiratheri, Wirashuri, Werogery, Woradjera, Wordjerg, Wira-Athorree, Wirajeree, Wirraiyarrai, Wirracharee) -Geawegal (Gwegal)
2. Wongaibon (Wongagibun, Wonghibon, Wonghi, Wombungee) -Ngemba (Ngiamba, Ngeumba, Ngiumba, Gaiamba) -Weilwan (Walywan) (Wailwan) -Baranbinja (Burranbinya, Burrunbinya, Barrumbinya)
3. Kamilaroi (Gamilaroi, Kamilarai, Kamilroi, Kamalarai, Koomilroi, Gunilroi, Guminilroi, Gumilray, Camleroy, Euhahlayi) -Koinberi (Koinberri)
4. Yualyai (Ualari, Juwalarai, Yualarai, Uollaroi, Yualai, Yerraleroi)
5. Wiriwiri
6. Nguri (Gnoree)
7. Barunggam (Murrungama, Murrumningama)

b. Miyal Subgroup

Bigumbil (Bigambul, Pikambul, Bigambal, Beegumbul, Pikambal, Pikumbul, Pickumbil) -Kwaimbal-Weraeria (Wirairai, Wallaroi, Wolroi, Walaro, Wolaroi, Wullaroi)

AB. Murawaric Group

Murawari (Morowari, Marawari, Murawari, Murrawarri, Muruwurri, Moorawarree, Moorawarrie, Marraawarree, Murri)

AC. Pama-Maric Group

a. Mari Subgroup

1. Mandandanji-Koamu (Guamu, Kuam, Kaombal) -Kunggari (Gungar, Kungeri, Kungri, Ungorri) -Kunja-Marnganji (Murngain, Murgoin, Murgoan) - Wadjelang (Wadjalang) - Kongabula (Ongabula, Khungabula) -Jimun-Karingbal (Kaingbul, Karranbal, Kanoloo) -Pitjara (Bidjera, Peechera) -Kairi (Khararya) -Kabelbara (Kabalbara, Kaiabara, Yettimaralla) -Wangan-Jagalingu (Wakelbara) -Wadjabangai (Kun-Gait) -Kuungkari (Koonkerri, Kungeri, Koongerri, Yangeberra, Yankibura) -Iningai (Muttaburra, Moothaburra, Mootaburra, Tateburra, Thararrabura) -Jambina (Yambeena) -Barna-Barada -Wiri (Wierdi, Widi) - Juipera-Nguro-Gia (Kia, Bumbarra, Bumburra) -Biria (Birigaba, Breeaba) -Jangga-Mian (Munkibura, Munkieburra) -Jirandali (Yerrunthully, Irendely, Dalebura, Pooroga)
2. Koa (Goa, Guwa, Goamulgo)
3. Ilba (Yukkaburra, Mungerra, Eneby, Pegulloburra) -Juru-Bindal -Wulgurukaba-Kutjala-Warungu-Mitjamba (Kumbulmara)-Jangaa -Tagalag (Takalak, Targalag, Dagalang) -Agwamin (Ak-Waumin, Wamin, Wommin, Waumin, Wawmin, Walamin) Koko Patun -Wakaman (Warkaman, Warkeeman, Warkamin, Warkeemon)

b. Yara Subgroup

Nawagi-Warkamai-Bandjin (Bijai) -Keramai (Kiramay, Kiramai, Wombelbara) -Gulngui-Djiru-Djirubal (Djirbal, Tjirbal, Chirpalji) -Mamu-Ngatjan (Ngadja, Ngachanji, Ngaitjandji)

c. Atherton Pama Subgroup

    1. Tjapukai (Tjapukandji, Tjapukanja, Tjabogaitjandji, Tjabogaijanji, Kokonjunkulu, Kokonyungalo, Koko-Tjumbundji, Hileman, Njakali, Nyakali)
    2. Idinji (Yiti·ntyi, Yukkaburra, Mungera, Enaby, Pegullobura, Idin) -Wudjar

d. Eastern Pama Subgroup

    1. Koko Imudji (Kuku Yimidyi, Kokojimoji, Kokoyimidir)
    2. Muluridji (Mulurutji, Molloroiji, Mularitchee, Kokomoloroitji, Kokomoloroij) -China Camp-Koko Jelandji (Kuku Yałandji, Kokoyellanji, Koko-Yerlandji, Kokoyerlantji, Kokolerlantchi) -Wulpura-Koko Walandja (Koko-Katji) -Koko Bididji

e. Bay Pama Subgroup

    Lamalama

f. Northern Pama Subgroup

    1. Otati (Oradhi, Wotati, Wutati, Wotadi) -Jathaikana (Yaraikana)
    2. Mpalitjan-Lotiga (Luthig, Okara)
    3. Jinwun (Yinwum)
    4. Awngthim (Tjanngayth-Mamngayt-Nraʔ angith) -Nrwaʔ a-Alngith (Laynngith) -Linngithig
    5. Nggoth (Ŋkoṭ)
    6. Aritinngithig
    7. Mbeiwum (Mbiywom, Kok Mbewam)

g. Middle Pama Subgroup

  1. Ombila (ʔumpila, Umpila, Ompeila, Ompela, Umpilo)
  2. Kandju (Ka·ntyu, Kanju, Kandyu, Kantju, Kanyu, Karnju, Karntju, Karnyu, Karnu, Kamdhue)
  3. Wikmunkan (Wik Mungkan)
  4. Wik Muminh
  5. Wikmean (Wik Meʔnh)
  6. Wikepa (Wikʔep)
  7. Wikngatara (Wik Ngathara)
  8. Taior (Ku·k Thayori, Kokkotaijari)

h. Western Pama Subgroup

  1. Jir Joront (Yirʔ Yoront, Kokomindjin, Kokomandjoen, Kokominjen)
  2. Koko Pera (Kokobera)

i. Gulf Pama Subgroup

Kunggara (Koonkurri, Ungorri)

j. Southern Pama Subgroup

  1. Ogondyan
  2. Aghu Tharnggala

AD. Kalibamic Group

Kalibamu

AE. Tangkic Group

  1. Lardil (Kunana, Laierdila)
  2. Gayardilt (Malununda) -Ganggalida-Jakula-Njangga (Yanggal, Nyangga)

AF. Murngic Group

- a. Yulngu Subgroup
  - 1. Gobabingo (Kupapuyngu, Gubabuyngu) -Gomaidj-Manggalili-Mararba (Maroura, Marowera, Jakajako, Yaakoyaako, Waimbo) -Djabu
  - 2. Riraidjango-Galbu-Warameri (Waramiri)
  - 3. Ritarungo (Ridarngo, Rittarungo, Ritaringo, Ritarngo)
  - 4. Wanʔguri
  - 5. Dalwongo
- b. Yulngo Subgroup
  - Jarnango (Yarnango)
- c. Djariwidji Subgroup
  - Jandjinung (Yandijinang, Yandjinung)
- d. Yulngi Subgroup
  - Djinba, Jinba, Djimba, Outjanbah)

AG. Maguiagic Group

- 1. Kaurareg (Kowrarega, Karualaig) -Muralag-Mabuiag-Jam (Yam) -Tutu-Masig
- 2. Dauan-Saibai

PHONOLOGICAL DIVERSITY

6.2 The high degree of phonological stability in the majority of the languages of the 29th phylic family contrasts sharply with an equally high degree of innovation in other languages, particularly those belonging to Northern Paman subgroup of northern Cape York Peninsula, as is shown in the Appendix. In this region, phonological changes have given rise to diversity unmatched elsewhere in Australia. There is more such diversity in the Cape York area than in the northern areas of the Northern Territory and Western Australia occupied by the 28 small phylic families. And the Cape York Peninsula languages are spoken in a small part of the total area of the phylic family XXIX.

Another clear example of phonological diversification is provided by the dialects spoken in the diagonally opposite corner of Australia -- the southwest. Certain of these dialects (e.g. Wat^{y}uk) are phonologically conservative and have the three-vowel system characteristic of most Australian languages. In others such as Paḷaṭoŋ, umlauting of the vowels of stem-initial syllables under the influence of final original high vowels, followed by the loss of such final vowels has given rise to a five-vowel system.

In Arnhem Land and the Kimberleys, the areas of historical diversity (in terms of multiplicity of language families), there is much less phonological diversity than in Cape York Peninsula. Indeed, the languages of

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these areas do not add anything to the picture of phonological diversity within Australia as a whole. One gains an impression of striking phonological homogeneity between the languages of the 28 small phylic families and those of the 29th phylic family (excluding Cape York Peninsula). This superficial homogeneity is belied by great morphosyntactic differences, and by an extreme dearth of cognates.

From a phonological viewpoint, there are several generalizations which can be made for Australian languages. The most powerful generalization opposed by not a single exception, is that the number of linear distinctions made among oral stops in a given language is identical with the number of linear distinctions made among nasals. For example, in Mabuiag, stops /p t k/ are matched by nasals /m n ŋ/; in MuluRut^{y}i (Cape York Peninsula), stops /p t t^y k/ are matched by nasals /m n n^y ŋ/; in Umpila, also spoken in Cape York Peninsula, oral stops /p t̯ t t^y k/ are matched by nasals /m n̯ n n^y ŋ/ (there is also a glottal stop /ʔ/ in this language). In N̯anta, on the opposite side of the continent, there are six oral stops /p t̯ t ṭ t^y k/ (plus /ʔ/) matched by six nasals /m n̯ n ṇ n^y ŋ/.

Another generalization, valid for most Australian phonologies aside from those of languages spoken in Cape York Peninsula, is that stop and fricative phones -- if the latter occur at all -- do not stand in contrast; nor is voicing, or any other series generating component commonly combinable with stops or other consonants in these Australian languages. For example, the contrasts shown in the phoneme inventory for YuḷpaRit^{y}a, one of the northern dialects of the Western Desert family-like language, are made in numerous Australian languages: stops / p t ṭ t^y k/ ; nasals / m n ṇ n^y ŋ/ ; laterals / l ḷ l^y/ ; flap / r/ ; and glides / w R y/ (with vowels / i a u/ , combinable with length). Aneven larger number of languages (as Ṋanta, above) make an additional linear distinction among stops, nasals, and laterals, yielding lamino-dental phonemes / ṱ ṋ ḽ/ . Among the few languages having an additional series of consonants, Brinken has four fricatives (in addition to six stops and nasals), and Wailpi and some of its neighbors in South Australia have a nasally released stop series / M Ṋ N Ṇ N^y Ŋ) as well as six plain stops / p ṱ t ṭ t^y k/ and nasals / m ṋ n ṇ n^y ŋ/ ; Wailpi also has four laterally released stops /λ̭ λ λ̣ $λ^y$/ as well as four laterals / ḽ l ḷ l^y/ ; but also the usual Australian flap / r/ , glides / w R y/ , and vowels / i a u/ .

The following inventories are listed in an order whereby the total number of phonemes in each inventory decreases with each successive tabulation.

Note on use of symbols: ṱ ṋ ḽ etc. represent dentals or interdentals; t n l etc. represent alveolars; ṭ ṇ ḷ etc. represent retroflexes; t^y n^y l^y etc. represent palatals; M N etc. represent stops with nasal release; λ etc. represent stops with lateral release; and R represents a retroflexed glide or semi-vowel.

The single Australian phoneme inventory making the maximum number of contrasts is exemplified by Arapana (XXIX L group) which distinguishes 31 consonants and 3 vowels (not counting vowel length):

p	ṱ	t	ṭ	t^y	k
m	ṋ	n	ṇ	n^y	ŋ
M	Ṋ	N	Ṇ	N^y	Ŋ
	ḽ	l	ḷ	l^y	
	λ̭	λ	λ̣	$λ^y$	
		r	ṛ		
w			R	y	

i u

a

Plus length.

Aranda (XXIX, E-b (sub)-group) distinguishes 27 consonants, 3 vowels:

p	ṱ	t	ṭ	t^y	k
m	ṋ	n	ṇ	n^y	ŋ
M	Ṋ	N	Ṇ	N^y	Ŋ
	ḽ	l	ḷ	l^y	
		r			
w			R	y	γ

i u

a

Plus length.

Brinken (XXII) distinguishes 24 consonants, 3 vowels:

p	ṱ	t	ṭ	t^y	k
m	ṋ	n	ṇ	n^y	ŋ
ɸ	θ		ṣ		x
	ḽ	l	ḷ	l^y	
		r			
w			R	y	

i u

a

Plus length.

Gubabuyŋu (XXIX, AF-a (sub) group) distinguishes 24 consonants, 3 vowels:

p	t̯	t	ṭ	t^y	k	ʔ
b	d̯	d	ḍ	d^y	g	
m	n̯	n	ṇ	n^y	ŋ	
		l				
		r				
w			R	y		

i u

a

Plus length.

Lamalama (XXIX AC-E group) distinguishes 24 consonants, 3 vowels:

p	t̯	t	t^y	k
b	d̯	d	d^y	g
m	n̯	n	n^y	ŋ
β	ð	z		γ
		l		
		r		
w		R	y	

i u

a

Plus length.

Uathaikama (XXIX, AC-f (sub)-group) distinguishes 20 consonants, 5 vowels:

p	t̯	t	t^y	k
b	d̯	d	d^y	g
m	n̯	n	n^y	ŋ
		l		
		r		
w		R	y	

i u

e o

a

Nanta (XXIX, A-d (sub)-group) distinguishes 21 consonants, 3 vowels:

p ṱ t ṭ t^y k ʔ
m ṋ n ṇ n^y ŋ
ḽ l ḷ l^y
r
w R y

i u
a
Plus length.

Wik-Mumiṋ (XXIX, AC-g (sub)-group) distinguishes 21 consonants, 3 vowels:

p ṱ t t^y k ʔ
b ḓ d d^y g
m ṋ n n^y ŋ
l
r
w R y

i u
a

Dalabon (VII) distinguishes 18 consonants, 6 vowels:

p t ṭ t^y k ʔ
m n ṇ n^y ŋ
l ḷ
r ṛ
w R y

i u
ə
e o
a
Plus length.

Ngaruku (XXIX, U-a (sub)-group) distinguishes 20 consonants, 3 vowels:

p	ṱ	t	ṭ	t^y	k
m	ṋ	n	ṇ	n^y	ŋ
	ḽ	l	ḷ	l^y	
		r			
w			R	y	

i	u
a	

Plus length.

Janjula (XIII) has the same system as Ngaruku but no vowel length.

Maung (II, A-b (sub)-group) distinguishes 18 consonants, 5 vowels:

p	t	ṭ	t^y	k	ʔ
m	n	ṇ	n^y	ŋ	
	l	ḷ	l^y		
	r				
w		R	y		

i	u
e	o
a	

Plus length.

Iwaidji (II) distinguishes 18 consonants, 5 vowels:

p	t	ṭ	t^y	k
m	n	ṇ	n^y	ŋ
	l		l^y	
	r	ṛ		
w		R	y	

i	u
e	o
a	

Kamilroi (XXIX, AA-a (sub)-group) distinguishes 18 consonants, 4 vowels:

p	ṱ	t	ṭ	t^y	k
m	ṋ	n	ṇ	n^y	ŋ
		l		l^y	
		r			
w			R	y	

i u

a o

Plus length.

Bard (XXVIII) distinguishes 17 consonants, 5 vowels:

p	t	ṭ	t^y	k
m	n	ṇ	n^y	ŋ
	l	ḷ	l^y	
	r			
w		R	y	

i u

e o

a

Plus length.

Wik-Me?ṋa (XXIX, AC-g (sub)-group) distinguishes 16 consonants, 6 vowels (not counting long vowels):

p	ṱ	t	t^y	k	?
m	ṋ	n	n^y	ŋ	
		l			
		r			
w		R	y		

Short vowels:

i ü u

e ö a

Long vowels:

i: u:

e: a:

Malyangapa (XXIX, M-c (sub)-group) distinguishes 18 consonants, 3 vowels:

p	ṱ	t	ṭ	t^y	k
m	ṋ	n	ṇ	n^y	ŋ
		l		l^y	
		r			
w			R	y	

i		u
	a	

Plus length.

Walpiri (XXIX, A-i (sub)-group) distinguishes 18 consonants, 3 vowels:

p	t	ṭ	t^y	k
m	n	ṇ	n^y	ŋ
	l	ḷ	l^y	
	r	ṛ		
w		R	y	

i		u
	a	

Plus length.

Lardil (XXIX, AE group) distinguishes 17 consonants, 4 vowels:

p	ṱ	t	ṭ	t^y	k
m	ṋ	n	ṇ	n^y	ŋ
		l			
		r			
w			R	y	

i	u
e	a

Plus length.

Nyangumarda (XXIX, A-h (sub)-group) distinguishes 17 consonants, 3 vowels:

p	t	ṭ	t^y	k			
m	n	ṇ	n^y	ŋ			
	l	ḷ	l^y		i		u
	r					a	
w		R	y		Plus length.		

Wik-Munkṋ (XXIX, AC-g (sub)-group) distinguishes 16 consonants, 3 vowels:

p	ṱ	t	t^y	k	ʔ			
m	ṋ	n	n^y	ŋ				
		l				i		u
		r					a	
w		R	y			Plus length.		

Wakawaka (XXIX, Z-a (sub)-group) distinguishes 15 consonants, 5 vowels:

p	t	ṭ	t^y	k	i		u
m	n	ṇ	n^y	ŋ	e		o
	l					a	
	r				Plus length		
w		R	y		and stress.		

Mabuiag (XXIX, AG group) distinguishes 15 consonants, 5 vowels:

p	t	k			
b	d	g			
	s				
	z				
m	n	ŋ			
	l		i		u
	r		e		o
w		y		a	

Mabuiag, above, has been influenced lexically by an unrelated but neighboring Papuan language, Miriam, which distinguishes 14 consonants, 5 vowels:

p	t	k			
b	d	g			
	s				
	z				
m	n				
	l		i		u
	r		e		o
w		y		a	

MuluRut^{y}i (XXIX, AC-d (sub)-group) distinguishes 13 consonants, 3 vowels, and is thereby representative of the minimum phonemic distinctions made in any Australian language:

p	t	t^y	k		
m	n	n^y	ŋ		
	l			i	u
	r			a	
w	R	y		Plus length (?)	

Some of the phonemicization in the preceding inventories were determined by Wurm (Gudabuyŋu, Kamilroi, Malyangapa, Wakawaka); some by Capell (Dalabon, Iwaidji); some by Mathews (Ngaruku); and the rest by Hale, or by O'Grady, or Hale and O'Grady, or Hale and Capell, or Capell, Hale and Wurm, or Capell Wurm and O'Grady, or O'Grady and Ray).

Structural Detail

6.3. Detail on individual languages and language families is provided here for languages and groups of languages numbered I to XXIX. The available information on most of these languages is sketchy in the extreme, but since this information is provided by anthropological linguists who are well trained and sophisticated, the information is reliable as far as it goes. Anthropologists and linguists who use this report (Australian Fascicle One) will realize that they have here the first systematic survey ever published of a large sample of Australian linguistic structures (not to be confused with classificatory surveys). The interest of the sample presented here reflects the kind of interest attached to any extensive linguistic survey work; this is a legitimate linguistic interest with a honorable and (occasionally) heroic history that extends from the beginning of the Age of Discovery when modern linguistic survey work began. In preceding periods of survey works, the work was no better than the model which dominated it--often a Latin or paradigm model which was not an appropriate one for many languages of the world. The present survey is also no better than--but by the same token, it is as good as--modern linguistic models permit. But still, the linguistic analyses which follow reflect survey work, by and large, rather than linguistic analysis in depth; and some modern linguistic models can be followed only for analysis in depth.

Two desiderata are apparent, and both will, hopefully, be realized in part in Australian Fascicle Two (and successive fascicles): a continuation of the sketchy works that are found in this fascicle, but a continuation which will make the sample of survey works on Australian languages exhaustive; and secondly, analysis in depth for as many Australian languages as available linguists are able to study for long periods of time.

Information which follows on languages numbered I to XXVII, below, is at least enough to distinguish one language family from another. The final part of this 6.3. section--indeed the bulk of the section as a whole--is devoted to languages in one language family--that numbered XXIX.

TIWIAN (I)

Tiwi is the sole member of this family. It is spoken by about 1,000 people on the islands of Bathurst and Melville, located north of Darwin on the northwestern coast of Arnhem Land. The separate classification of Tiwi is confirmed by Capell who has shown this language to be 'unique in Australia in its linguistic type'.

The Tiwi verb is highly complex in that it incorporates both pronouns and nouns; the incorporated forms of the latter have no formal resemblance to the corresponding free forms. For example, the free form meaning egg is köḷuwuka, but the incorporated form is -tinuŋu- as in ŋiri-tinuŋu-ŋa I took the egg. Elements of time, duration, subject and object may all be included in the Tiwi verbal complex. More detail on the structure of Tiwi is to be found in A. Capell's ms grammar.

IWAIDJAN (II)

There are four languages in this family all located in the coastal area of Arnhem Land:

Iwaidji, spoken by 55 speakers (1938) in the Coburg Peninsula;
Maung spoken on North and South Goulburn Island and the neighboring mainland;
Amarag, nearly extinct, spoken east of the Van Diemen Gulf;
Margu, also nearly extinct, the language of Croker Island.

The structure of Maung is unlike the other languages of this family in that it has six 'noun classes' (masculine, feminine, plural--plural of both masc. and fem.--, general neuter, and two others whose semantic significance has not yet been determined); in contrast, the remaining three languages have no such 'classes' at all. Generally, the Iwaidjan languages do not have a formal dual number. A grammar of Iwaidji (Jiwaidji) has been published by A. Capell (see 0.1. above). A Maung grammar, also by A. Capell, is to be published soon.

KAKADUAN (III)

Kakadu (Gagadu; perhaps more accurately, Awur), the only member of this family, is spoken in the vicinity of the East and South Alligator Rivers in northern Arnhem Land. Only a few speakers remain.

Both nouns and pronouns are variously differentiated in terms of number (singular, dual, plural) and gender (masculine, feminine); appropriate concordial affixes occur throughout the Kakadu sentence. A binary tense-aspect system operates in the verb: future vs. non-future and positive vs. negative. A Kakadu grammar, by A. Capell is soon to be published.

MANGERIAN (IV)

The two languages of the Mangerian family, Mangeri and Uningangk, both now nearly extinct, are spoken near Oenpelli, east of the East Alligator River in northern Arnhem Land. Information here permits one to say that the two languages are closely related.

GUNAVIDJIAN (V)

Gunavidji is the sole language constituting this family. It is spoken at the mouth of the Liverpool River on the northern coast of Arnhem Land. The dual number is not distinguished in Gunavidji.

NAGARAN (VI)

Nagara (Nakara) is spoken on the Arnhem Land coast north of the Tomkinson River (with Gunavidji to the west). Information here permits one to say that no other Australian language is closely related to Nagara.

GUNWINGGUAN (VII)

The eleven languages of this family are scattered over various parts of

Arnhem Land from the coastal area of Junction Bay in the north to the Roper River in the south.

Gunwinggu is the most widely known language in western Arnhem Land and is used to some extent as a lingua franca, with Oenpelli as the focal area. The Gumadir dialect is spoken further to the north.

Gundangbon is spoken at the source of the Liverpool River; Boun-Dalabon dialects--dialects of a single language--are spoken further south in an area about the Bulman Gorge and the Wilton River; Ngalakan is spoken north of the Roper and west of the Wilton River; Ngandi considerably further east; Rainbarngo at the western source of the Goider River; Djauan and Wardaman south of the Alligator Rivers and the Adelaide River respectively; and Jungman in southern Arnhem Land southwest of the source of the Roper River.

Gunwinggu is typologically very similar to Maung (of the Iwaidjan family): both distinguish five noun classes, with concord for each. Ngandi has six noun classes where other languages of this family like Boun-Dalabon, Rainbarngo and Gundangbon have no noun classes at all. A grammar of Dalabon has been published by A. Capell (see 0.1. above). There is also a ms. grammar of Gunwinggu by Oates.

BURERAN (VIII)

This family includes two languages, Burera (plus related dialects of the same language), and Gorogone. Burera is spoken by some 350 people in the Blythe River area on the northern coast of Arnhem Land (north of the

Tomkinson River). Gorogone is spoken south of the Tomkinson River.

These languages each have four noun classes and a full pronominal system distinguishing three persons, three numbers, and (in the dual and plural first persons) inclusive vs. exclusive. The Burera verbal system distinguishes, by means of prefixes, three tenses (past, present, future); by means of suffixes, the past tense of some but not all verbs is differentiated into near and remote.

NUNGGUBUYAN (IX)

Nunggubuyu, the only member of this family, is spoken on the eastern coast of Arnhem Land in the Rose River area opposite Groote Eylandt. Typologically Nunggubuyu and the language of Groote Eylandt resemble each other very closely. Both have nine noun classes. A. Capell has written a Nunggubu grammar (ms.).

GROOTE EYLANDTAN (X)

This isolated language is spoken on Groote Eylandt in the Gulf of Carpentaria. It is alternately known as Andilyaugwa or Ingura. Information is contained in a ms. grammar by A. Capell.

MARAN (XI)

The three languages which constitute this family are spoken in southeastern Arnhem Land: Mara on both sides of the Roper River, Wandaran just to the north, and Alawa to the southwest on both sides of the Hodgson River.

The Mara pronominal system distinguishes three persons and three numbers: inclusive vs. exclusive in the first person dual and plural, and masculine vs. feminine (in the third person singular only). The verb is marked by prefixes for person and number, and by suffixes for tense (past, present, future) and mood (positive vs. negative and active vs. reflexive). Auxiliaries are used to form complex tenses.

Unlike Mara, Wandaran has five noun classes, all of which are also distinguished in the third person singular pronouns. Alawa has less noun classification and concord than Wandaran, and Mara has less than Wandaran.

MANGARAIAN (XII)

The sole language constituting this family is Mangarai, spoken mainly south of the western Roper River, west of the Alawa which is a language in the Maran family (XI).

YANYULAN (XIII)

Yanyula (Janjula, Anjula, Wadiri) is spoken on the coast of the Gulf of Carpentaria from the Limmen River to an area opposite the Sir Edward Pelew Islands.

Yanyula has six noun classes with extensive concord. These classes are also distinguished in the forms of third person pronouns. The verbal tenses are the simple present, near past, general past, near future, desiderative, conditional and general future. The pronominal object is marked in the verb.

TJINGILUAN (XIV)

Tjingilu is spoken south of Newcastle Waters in central Northern Territory.

WAMBAYAN (XV)

Wambaya is spoken west of the northern part of the Barkly Tableland in east central Northern Territory.

KARWAN (XVI)

The Karwan family including the two languages Karwa and Wanyi, is spoken in the northern border area of Northern Territory- Queensland.

MINKINAN (XVII)

Minkina is spoken around Burketown in eastern Queensland.

LARAKIAN (XVIII)

Larakia (Laragia) and Wuna (Wulna, Woolna) are spoken near Darwin in western Arnhem Land. These two languages distinguish--as do languages of the Northern Kimberley area--the following: noun classes (with extensive concord); the pronominal object in the verb and class distinctions in the verb. Capell is the author of a Larakia grammar (ms.).

WOGATJAN (XIX)

Wogait (Wogatj, Wogaidj) is spoken south of Anson Bay and at the mouth of the Daly river in northwestern Australia.

Wogait has an extremely simple verbal tense scheme; indeed, tense is frequently left unmarked. Noun classification appears, but there are few noun classes. The pronominal system, however, shows many distinctions: three persons, three numbers, inclusive vs. exclusive (in first person dual and plural), and masculine vs. feminine in the third person singular. Both subject and object pronouns are morphologically included in the verbal complex.

GARAMAN (XX)

The two languages of this family, Garama and Murinbata, are spoken on the northwestern coast of Northern Territory just north of the Fitzmaurice River.

DJAMINDJUNGAN (XXI)

The four languages of this family are spoken between the Fitzmaurice and Baine Rivers in northwestern Australia. Nungali is structurally quite divergent from the remaining three languages, since it has a number of noun classes with full concord which relates all modifiers to nouns. Noun classes are not at all distinguished in the other three languages--namely, Djamindjung, Jilngali and Ngaliwuru.

BRINKEN (XXII)

The two Brinken languages, Brinken (Marithiel) and Maramanindji, are spoken between the Daly and Fitzmaurice Rivers. They distinguish four simple noun classes, the first including people, body parts and most natural objects (unmarked); the second including animals, birds and meat foods (marked by a-); the third including trees and wooden objects (marked by dar-, the first syllable of the word for tree); and the fourth including vegetable foods (marked by mi-, the first syllable of the word for food).

NANGUMIRIAN (XXIII)

Nangumiri is spoken just east of the Brinken languages. This language has a unique class system in which seven prefixes are combinable only with adjectives.

MULLUKMULLUKAN (XXIV)

Mullukmulluk is spoken north of the Daly River, south of Darwin. It distinguishes four noun classes whose referent ranges are not at all like those in Brinken (XXII, above). Of the classes in Mullukmullukan, the first includes persons and other living creatures that are males (marked ji-); the second includes females (marked nu-); the third includes lifeless objects (marked wu-); the fourth includes vegetable foods, some body parts and thunder (marked mu-).

DJERAGAN (XXV)

Five Djeragan languages are spoken in the coastal area of the Joseph Bonaparte Gulf on both sides of the Western Australia-Northern Territory boundary line. All five of these languages--Gidja, Guluwarin, Lungga, Miriwun and Gadjerong--mark nouns for masculine singular, for feminine singular, and for plural non-committal as to gender (e.g. Guluwarin: -n masculine singular, -l feminine singular, -m plural). There are no other noun affixes. The verbs and pronouns of Djeragan languages distinguish four numbers (singular, dual, trial and plural); three persons; inclusive versus exclusive; and masculine versus feminine. Verbs also distinguish present, past, future, irrealis and imperative.

BUNABAN (XXVI)

The two languages of this family, Bunaba and Gunian, are spoken in the Fitzroy River Basin, southeast of Derby. Bunaba has two dialects, one spoken in the west and the other in the east. The verb morphology of the latter is the simpler of the two.

The Bunaban languages have no noun classes; they do mark the dual number, but only in restricted selections.

Western Bunaba verbs distinguish as many as ten tenses (as do some of the unrelated Aranda languages): indefinite, present continuous, immediate past, recent past, general past, near future ('soon'), immediate future ('about to'), general future, progressive future, and distant future. Eastern Bunaba in general distinguishes half as many tenses. In dependent clauses in Western Bunaba the same tense forms relate to a different referent range.

WORORAN (XXVII)

The nine languages of the Wororan family are spoken over a large part of northern Western Australia, roughly from Derby to Wyndham--a distance of 300 miles--and from the coast to about 200 miles inland.

All the languages in this family have four, six, or seven noun classes, with associated prefix concord systems. Auxiliary minor morphemes appear in many verbal constructions. The primary verbal distinction is between realis and irrealis in all languages in the Wororan family (except Worora, which distinguishes many moods and tenses). Ungarinyin is the most widespread language of the family; it is spoken in the Northern Kimberleys.

NYULNYULAN (XXVIII)

The four languages of this family are spoken in the coastal area surrounding King Sound, and as far south as Broome. The Djaui dialect is spoken on the Sunday Islands. A Nyulnyul grammar has been published by Nekes and Worms (see 0.1 above).

PREFACE TO XXIX

For further information on families I to XXVIII, above, see papers in Oceania (10.241-72 and 404-33, 1940; 12.364-92, 1942; 13.24-50, 1942) by A. Capell. The rest of our section 6.3 is devoted to the Southwestern

Group of the Pama-Nyungan language family numbered XXIX. Information on the languages of Arnhem Land and the Kimberleys--I to XXVIII--remains largely in manuscript; it has been estimated that 19/20th of the data obtained in linguistic surveys there still remains in field notes for future analysis, while 1/20th of the data obtained has been published. A somewhat greater portion of information obtained in linguistic survey work on languages of the Pama-Nyungan phylic family is given in the following report on language family XXIX. Geographically speaking, the Pama group in this family does not account for languages of the Southwestern group (and samples of the Pama group are given separately in an appendix after the others). What are, strictly speaking, the Southwestern Group languages of the Pama-Nyunyan phylic family are given below under the following center heads: Ngayarda Subgroup, Kanyara Subgroup, Mantharda Subgroup, Kardu Subgroup, Nyunga Subgroup, Mirniny Subgroup, Wati Subgroup.

NGAYARDA SUBGROUP

1. Ngarla /ŋaḷa/, also known as Wanbarda /wanpaṭa/, is numbered 479 on Greenway's map and is located in Western Australia at 20° S and 119° E. In 1864 there were several hundred speakers (Curr 1886), reduced to less than half a dozen at the present day. The sources are Curr (1886), plus brief field notes collected by Davidson in the 1930's and by O'Grady in 1954. Ngarla has no known dialectal variants. It is closest linguistically to Nyamal, with which it shares a cognate density of 65 percent.

The Ngarla phoneme inventory as excerpted from O'Grady's field notes of 1954 is as follows:

p	t	ṭ	t^y	k			
m	n	ṇ	n^y	ŋ	i		u
	l	ḷ	l^y			a	
	r						
w		R	y				

Curr's word-lists, recorded in the 1880's, strongly indicate that the language earlier had lamino-dental or lamino-interdental /t̪ n̪ l̪/ in addition to the above. This is in keeping with the fact that languages of the Ngayardic subgroup which are not yet moribund make six linear distinctions among stops and nasals. In the idiolect of O'Grady's Ngarla speaker of 1954, earlier /t̪ n̪ l̪/ had apparently merged with lamino-alveolar /t^y n^y l^y/ under the influence of the Nyangumarda linguistic milieu in which this informant had been submerged, probably for several decades. In other words, by 1954 he was speaking phonologically 'nyangumardized' Ngarla (see XXIX. A. h.1, Nyangumarda). It is highly probable that numerous other moribund Australian languages have undergone similar phonological changes during this century under the influence of neighboring languages still flourishing.

Ngarla stem classes are verbs, nouns, and particles. Noun subclasses include N_s (substantives) and N_p (pronouns). The general term 'pronouns' in this and following discussions is used as a cover-term for 'pronouns' marking non-third person and 'demonstratives' marking third person.

The Ngarla pronouns are:

ŋaya ~ ŋayi	*I*
ŋali	*we du incl*
ŋaliya	*we du excl*
ŋan^{y}t^{y}ara	*we pl incl*
ŋanaṇa	*we pl excl*
n^{y}inpa	*you sg*
n^{y}umpalu	*you du*
n^{y}ura	*you pl*
ŋun^{y}i	*he, she, it*
ŋun^{y} ipiyalu	*they du*
ŋun^{y}ipan^{y}alu	*they pl*

The following tense-marking suffixes are divisive for verbs:

-n	*past*	as in	ŋaya yanan	*I went*
-ŋkaya	*present*	as in	ŋaya yanaŋkaya	*I am going, I go*
-kuRa	*future*	as in	ŋaya yanakuRa	*I will go*

The following relationship markers are divisive for nouns:

-ŋuRu	*elative*	as in	wan^{y}t^{y}aluŋuRu	*from where?*
-ŋka	*locative*	as in	piriŋka	*in the afternoon*
-kaṇi ~ -kaṭi	*allative*	as in	ŋurakaṇi	*to the camp*
-ŋa	*possessive*	as in	ŋanuŋa kun^{y}t^{y}aṭa	*my wife*

2. Nyamal /n^{y}amal/, numbered 483 on Greenway's map, is at 21° S and 119° E, and is linguistically almost identical with Widugari /witukari ~ witakari/ (number 484) spoken further to the east. There are probably at least a score of speakers, but even those for whom it was a first language are

using it less and less in favor of Nyangumarda and English. The sources are the same as for Ngarla plus Holmes(1960).

The Nyamal phoneme inventory, as excerpted from O'Grady's 1954 field notes, is identical with that for Ngarla. As in the moribund Ngarla, so also at least in some Nyamal idiolects, the lamino-dentals /t̯ n̯ l̯/ and lamino-alveolars /t^{y} n^{y} l^{y}/ of the late 19th century have now apparently merged under the influence of Nyangumarda. In other Nyamal idiolects the earlier distinction still survives.

Nyamal stem classes are verbs, nouns, and particles. Noun subclasses include N_s (substantives) and N_p (pronouns). The pronouns are:

ŋat^{y}a	I
ŋalilu	we du incl
ŋaliya	we du excl
ŋan^{y}t^{y}ula	we pl incl
ŋanaṇa	we pl excl
n^{y}unta	you sg
n^{y}umpalu	you du
n^{y}uralu	you pl
ŋun^{y}a	he, she, it
ŋun^{y}apiyalu	they du
t^{y}analu	they pl

In some Nyamal idiolects the first and last items of the list are ŋat̯a and t̯analu respectively.

The following suffixes are divisive for verbs:

-ṇa ~ -n^{y}a past as in pat^{y}aṇa he ate it; waṇin^{y}a he fell

-lka ~ -yampa present as in wiyalkaṇa I see it; n^{y}iniyampa he is sitting

-la usitative as in maŋan^{y}alu ŋana pat^{y}ala what do porcupines eat?

-ka ~ -ma imperative as in puŋaka kill it!; wuṭama wait!

The only person-marking suffix listed is -ṇa I. Other person categories are marked by independent pronoun only. The suffix -na follows those of the above suffixes with which it occurs in sequence as in kan^{y}ilkaṇa I'm carrying it, but precedes the following suffix:

-mu future as in papa pun^{y}t^{y}aṇamu I'll drink the water

The following suffixes are divisive for nouns:

-lu ~ -ŋku ergative as in ŋat^{y}ukulu yukurulu n^{y}an^{y}t^{y}aṇa t^{y}uru my dog bit the snake

-la ~ -ŋka locative as in ŋat^{y}ala on me; yuḷaŋka in the camp

-kaṇi ~ -kaṭi allative as in pit^{y}ukaṇi to the river

-yapa privative as in wit^{y}ayapa ŋat^{y}a I have no food

-ku ~ -ŋu possessive, dative as in ŋat^{y}uku for me, of me; piyaŋu for them du, of them du

3. Bailko-Pandjima /pal^{y}ku/ and /pan^{y}t^{y}ima/, numbered 490 and 491 respectively, are dialects of a single language, sharing 79 percent of their basic vocabulary. Bailko is located at 22° S and 120° E, and Pandjima borders it on the west. Pandjima itself occurs in two subdialects, Dugur /ṭukur/, the northeastern, and Milyaranba /mil^{y}aranpa/, the southwestern. Both Bailko and Pandjima have less than 50 speakers. The sources for both are unpublished field notes collected by O'Grady in 1958.

The phoneme inventory for both dialects is as follows:

p	ṱ	t	ṭ	t^y	k			
m	ṋ	n	ṇ	n^y	ŋ	i		u
	ḽ	l	ḷ	l^y			a	
		r				± length (very rare)		
w			R	y				

In Bailko there is free variation in some morphemes between lamino-dentals and lamino-alveolars of the same manner class, and between /R/ and /y/.

In both dialects, stem classes are verbs, nouns, and particles. In Bailko the pronouns (which are a subclass of the noun class) are:

ŋaṱa	*I*
ŋali	*we du incl*
ŋaliya	*we du excl*
ŋaṋula	*we pl incl*
ŋanaṇa	*we pl excl*
n^yinta	*you sg*
ṋupalu	*you du*
ṋuwalu	*you pl*
ŋuṋa ~ ŋun^{y}a	*he*
ŋun^{y}akuṱa	*they du*
ŋun^{y}at^{y}iri	*they pl*

The following are series 1 of the Bailko verb divisives:

-lpi ~ -pi *past* as in wan^{y}t^{y}alpiṇa *I left him*; káḷin^{y}api *he returned*

-ma ~ -mpa *present* as in wat̯ayimanpa *you are looking for it*; waḷpa puŋkampa *the wind is blowing*

-nma ~ -ma *imperative* as in t^y^ipanma *wake him up!*; katima *carry it!*

-ṭa *purposive* as in maṇaṭa *in order to get it*.

The absence of any of the above structural series marks *future* as in witiṇa (i.e. witi-∅-ŋa) *I will run*.

The following are series 2 (actor):

-ŋa	*I*
-li	*we du incl*
-liya	*we du excl*
-la	*we pl incl*
-kuta	*we pl excl*
-npa	*you sg*
-ŋpula	*you du*
-n^y^u	*you pl*
-ya ~ -∅	*he*
-pula	*they du*
-ya	*they pl*

There are two mutually exclusive sets which constitute series 3:

Direct Goal		Indirect Goal	
-t^y^a	*me*	-t^y^u	*to me*
-ŋalin^y^a	*us du incl*	-ŋalimpa	*to us du incl*
-ŋun^y^a	*us pl incl*	?	
(no overt marker)	*him*	-kuRa	*to him*
-pan^y^a	*them du*	-panpa	*to them du*
-t^y^ana	*them pl*	-t^y^anampa	*to them pl*
-n^y^inta	*reflexive*		

Series 4 of the verb divisives are closing suffixes:

-Ru optative as in witiṇaRu let me run!

-yapa negative future as in yin^{y}antayapa (I) won't give you any.

The following are divisive noun suffixes:

Verbalizing

-ma- as in ŋat͓alu wankamaṇa I will cure him (wanka alive, well)

-ya- as in kutiyapi it died (kutu dead)

Number

-kut͓a dual

-t^{y}iri plural

Relational$_1$

-t͓aṇṭu possessive as in ŋaṱut̯aṇṭulu mamaŋku yanimalpit^{y}u my father made it for me

Relational$_2$

-lu ~ -ŋku ergative (see above)

-ku ~ -yu ~ -∅ indirect goal as in ŋanin^{y}aku watayimanpa what are you looking for?

-ŋka locative as in t^{y}unama mantu kaḷuŋka put the meat in the fire!

-wali ~ -waṭayi allative as in t^{y}aṇiwali whither?; ŋaṱawaṭayi towards me

-t^{y}a ~ -ņi elative as in manama mantu kalaṭ^{y}a take the meat out of the fire! ; t^{y}aṇiṇi n^{y}inta where are you from?

-ŋaṇi possessed of as in n^{y}inta papaŋaṇi do you have water?

-pati privative as in ŋat͓a papapati I have no water

The Pandjima pronouns are listed below. Unlike those in Bailko, they are not paralleled by matching series of suffixial person markers. Also unlike

Bailko, no distinction is made between direct goal and indirect goal.

Actor		Goal
ŋaṱa	I	ŋat^{y}u
ŋali	we du incl (nephew-excluded)	ŋalimpaku
ŋat^{y}upaṱa	we du incl (nephew-included)	ŋat^{y}upaṭaku
ŋaliya	we du excl	ŋaliyaku
ŋalikuRu	we pl incl (nephew-excluded)	ŋalikuRuku
ŋat^{y}upaṋṱaRi	we pl incl (nephew-included)	ŋat^{y}upaṋṱaRiku
ŋaliyakuRu	we pl excl	ŋaliyakuRuku
n^{y}inta	you sg	n^{y}inku
ṋupalu	you du (nephew-excluded)	ṋupaluku
n^{y}inkuwi	you du (nephew-included)	n^{y}inkuwiku
ṋupalukuRu	you pl (nephew-excluded)	ṋupalukuRuku
n^{y}inkupaṋṱaRi	you pl (nephew-included)	n^{y}inkupaṋṱaRiku
ŋuṋa	he	ŋuṋayu
ŋuṋakuṱa	they du	ŋuṋakuṱaku
ŋuṋat^{y}iri	they pl	ŋuṋat^{y}iriku

The following is series 1 of the Pandjima divisive verb suffixes:

-nmayi- ~ -yi- reciprocal as in ŋaliya wiyanmayiṋa yukuru the dog and I saw each other

Series 2 is listed below:

-ṇa ~ -ṋa past as in yukuru wiyaṇa ŋat^{y}u the dog saw me; ŋaṱa waṱariṋa yukuruku I looked for the dog

-lku ~ -ku ~ -wu present as in kaḷayu ŋaralku he's chopping wood; ŋaṱa yaṇaku yuḷukaṭa I'm going to the camp

-nma ~ -ma imperative as in pantima n̯upalukuRu yuḷuŋka pal^{y}aŋari you women stay in the camp!; ta·nma ŋat^{y}ukaṭa send him to me!

-lkat^{y}i ~-kat^{y}i future as in kintit^{y}malkat^{y}i it's going to rain; ŋat̯a ŋaṇakat^{y}i mantuyu waRumuṇṭu I'll eat the meat tomorrow

-laṭa ~ -ṭa optative as in ŋat̯a n̯an̯t̯alaṭapula let me bite myself!; ŋali n̯an̯t̯anmayiṭa let's bite each other!

-ŋu consequential as in waṇiŋu with the result that he fell

-lala concurrent action as in wiyalala while looking

Series 3 is listed below:

-ṇi ~ -t^{y}u motion towards speaker as in yin^{y}amaṇi mantu give me some meat!; katimat^{y}u ŋun̯a bring me that!

-pula reflexive as in ŋat̯a wiyaṇapula I saw myself

A nondivisive operator combinable with some nouns in Pandjima is reduplication, the function of which is intensative. Examples are mit^{y}imit^{y}i red (mit^{y}i blood); paḷinpaḷinpa tortuous (paḷi crooked). In the last example the final syllable -pa is not reduplicatively based, but is a morphophonemic reaction to what would otherwise be a final consonant.

The suffix -n̯a, which is not divisive for the stem class of nouns as a whole, marks the actor form of proper names as in kalun̯a Kalu (a personal name).

The following are divisive noun suffixes in Pandjima:

Verbalizing

-yi- forms intransitive verbs as in t̯uḷayin̯a he was born (t̯uḷa eye)

Number

-kut̯a dual as in maḷpakut̯a two men

-ŋari ~ -t^{y}iri as in pal^{y}aŋari women; ŋun̯at^{y}iri they pl

Relational $_1$

-t̯aṇṭu ~ -waṇṭu ~ -aṇṭu possessive as in mut^{y}iRat̯aṇṭu n^{y}ilkaṇ dingo's lair

Relational $_2$

-lu ~ -ŋku instrument, manner as in n^{y}aṇiŋku pakapinma tear it slowly!

-ku ~ -yu goal (direct-indirect) as in ŋat̯a wat̯arin̯a yukuruku I looked for the dog; ŋaṇan̯a mantuyu ŋat̯a (or, for example, ŋat̯a ŋaṇan̯a mantuyu) I ate the meat

-la ~ -ŋka locative as in yuḷuŋka in the camp

-ŋuRu elative as in ŋat̯a pakaṇa ant^{y}ilulaŋuRu I have come from Onslow (ant^{y}ilu Onslow)

-wali ~ -kaṭa ~ -kuRa allative as in yuḷuwali ~ yuḷukaṭa towards the camp; yiramakaṭukaṭa to Roebourne; waṭaṇkuRa northwards

-ŋaṇi possessed of as in maḷpa pal^{y}aŋaṇi married man (maḷpa man; pal^{y}a woman)

-pati privative as in waŋkapati maḷpa dumb man (waŋka speech)

-maRi causal as in t̯ankanki·ku muṭumaRi he's shaking because of the cold

The following nonclosing suffix is compatible with both verb and noun stems:

-ŋuru ~ -wuru habituative as in kun^{y}anŋuru sleepy; waḷawaŋkawuru liar

Two closing emphatic morphs, -la and -ṭu, occur in sequence with either verbs or nouns as in ŋun̯a yuḷuŋkaṭu maḷpaḷa that man is in the camp!

4. Kurama-Jindjibandi /kurama/ and /yint^{y}ipaṇṭi/ are numbered 492 and 482 respectively on Greenway's map. The shared cognate density is 78 percent, but the morphosyntactic similarity between Kurama and Jindjibandi is greater thanbetween Bailko and Pandjima. The phoneme inventories for

Kurama and Jindjibandi are identical. The morphosyntactic data, which are presented below for Jindjibandi only, are almost identical for Kurama. Jindjibandi is located at 21° S and 118° E; Kurama borders it to the southwest. Jindjibandi has more than 200 speakers and is still, moreover, a viable language, being spoken by children as well as by adults. Kurama has a few dozen speakers. The sources for both dialects are unpublished field notes and tape recordings collected by O'Grady in 1958, and by Hale in 1960.

The phoneme inventory for both dialects is charted below.

p	t̯	t	ṭ	t^y	k
	ð				
m	n̯	n	ṇ	n^y	
		l	ḷ		
		r	ṛ		
w			R	y	

i u

a

± length

In some idiolects, /ð/ has a principal allophone [ð], while in others the principal allophone is [l̯]. Length (in vowels) carries a much higher functional load in Kurama-Jundjibandi than in other Ngayarda languages--e.g. Jindjibandi maṭa blood; ma·ṭa right hand. The contrast between lamino-dentals and lamino-alveolars is exemplified in the minimal pair t̯aŋku bull ant but t^yaṇku myself, yourself.

The stem classes of both dialects are verbs, nouns, and particles. The pronouns of Jindjibandi--a subclass of noun--are listed below. There are no suffixial person markers in the language.

Actor	Goal	Possessive	Locative	
ŋayi	ŋayu	ŋaðaṇṭu ~ ŋa·ṇṭu	ŋaðala	*I*
ŋali	ŋaliwu	ŋaliyaṇṭu	ŋalila	*we du incl* (*nephew-excl*)
ŋayuwaṭa	ŋayuwaṭawu	ŋayuwaṭayaṇṭu	ŋayuwaṭala	*we du incl* (*nephew-incl*)
ŋaliya	ŋaliyawu	?	ŋaliyala	*we du excl*
ŋayin̯t̯ari	ŋayin̯t̯ariwu	ŋayin̯t̯ariyaṇṭu	ŋayin̯t̯arila	*we pl incl*
ŋaliyampuru	ŋaliyampuruŋu	Ŋaliyampuru-ŋaṇṭu	Ŋaliyampurula	*we pl excl*
n^yinta	n^yinku	n^yinkaṇṭu	n^yintala	*you sg*
n^yintawuða	n^yintawuðawu	n^yintawuða·ṇṭu	n^yintawuðala	*you du* (*nephew-excluded*)
n^yinkuwi	n^yinkuwiwu	n^yinkuwiyaṇṭu	n^yinkuwila	*you du* (*nephew-included*)
walaŋarkuða	walaŋarkuðawu	walaŋarkuða-yaṇṭu	walaŋarkuðala	*you du* (*MoBr-included*)
n^yintawu	n^yinkupuruŋu	?	n^yintawuwula	*you pl*
ŋun̯a	Ŋun̯a·ku	Ŋuṇiyaṇṭu	?	*he*
ŋun̯uwuða	Ŋun̯uwuðawu	Ŋun̯uwuðayaṇṭu	Ŋun̯a·kuðala	*they du*
ŋun̯uŋkiri	Ŋun̯uŋkiriwu	Ŋun̯aŋkat^{y}iri-yaṇṭu	?	*they pl*

The suffix comprising series 1 of Jindjibandi verb suffixes is -ŋ̣mari *reciprocal* as in ŋali wanpiṇmariyi *you and I are going to have a fight* (wanpi- *to hit*).

Series 2, comprising divisive verb suffixes, is listed below.

-ṇa ~ -n̯a *past* as in ŋayi kampaṇa *I cooked it*; ŋayi kaRpan̯a *I climbed up*

-ku ~ -ø *present* as in ŋayi kampaku *I am cooking it*; ŋayi kaRpa *I am climbing up*

-kayi ~ -wayi ~ -yi ~ -ø *future, purposive* as in ŋayi kampakayi *I will cook it*; ŋayi kaRpayi *I will climb up*; ŋayi ŋarkuwayi *I will eat it*

-nma ~ -ṇma ~ -ma *imperative* as in kampanma *cook it!*; wanpiṇma *hit him!* kaRpama *climb up!*

-yi (with alternation in some stem-final vowels to -a-) *past conditional* as in n^{y}inta muntiṱu paŋkarayi wirulamu yuraŋka // ŋayi ŋaδiyiŋu# *if you had really gone yesterday, I would have cried*

-maṭa *usitative* as in waŋkayi mankumaṭa *it records speech*

-la *desiderative*

-n^{y}a *optative*

-ŋara *hortative*

-waḷu *habituative*

The category of reflexivity is marked by the particle t^{y}aṇku as in ŋayi mankuṋa t^{y}aṇku n^{y}iluṇku *I grabbed my navel.*

Reduplication is operable with a limited number of nouns as in puṇṭawuṇṭa *full of holes* (puṇṭa· *hole in the ground*); kaṇṭaRa waruwaru *water-laden clouds* (waru *black*).

There follows a list of Jindjibandi noun suffixes.

Verbalizing

-ma- ~ -wi- *transitivizer* as in ṱuḷamanma *wake him!* (ṱuḷa *eye*)

-t^{y}ari ~ -ri ~ -yi ~ -ya ~ -waṇi *intransitivizer* as in ŋayi wa·ri *I'm frightened*; ṱuḷawaṇima *wake up!* (ṱuḷa *eye*)

Status Quo

-n^{y}uŋu ~ -t^{y}iŋu as in ŋaṇkan^{y}uŋu *airplane* (ŋaṇka *sky*); kaRit^{y}iŋu *drunk* (kaRi *liquor*)

-maṇṭa as in ṱa·ṱamaṇṭa *greedy*

-ŋaru ~ -paṇa *locational* as in ŋuṋaŋaru *there*

-wura· *on the side of* as in waŋkuruwura· *on the sea side*

-waraṇu *moiety* as in ṱampuḷawaraṇu *moiety comprising pal^{y}t^{y}iri and puRuŋu sections*

-miṭari characteristically as in maṇṭamiṭayi rocky (maṇṭa stone)

-munti intensative as in ŋayi pa·ŋulin̯a waḷuŋku waruŋka ŋaḷumunti I was bitten right in the stomach by a snake during the night

Number

-wuʒa ~ -wara dual as in maRuwuʒa two hands

-ŋaḷi ~ -ra ~ -n̯t̯ari ~ -ŋkiri ~ -puru ~ -wu plural as in ŋa·ṛaŋaḷi men; maŋkuḷara children

The suffixes listed below are divisive for nouns.

Relational $_1$

-yaṇṭu ~ -waṇṭu ~ -aṇṭu ~ -·ṇṭu ~ -ṇṭu possessive as in ŋaɣaṇṭu ~ ŋa·ṇṭu mine

Relational $_2$

-lu ~ -ŋku ~ -u actor (only in passive constructions), instrumental as in ŋayi puRpi miṇumaŋuli n^yintalu I want to be taught by you; ŋayi wanpiṇa maRaŋku I hit it with my hand

-n̯a (only with proper nouns in sequence with active verbs) actor as in t̯ampuḷan̯a kaRpa Tumbler is climbing up; t̯ampuḷan̯a wanpiṇa ŋayu Tumbler hit me

-wu ~ -yi ~ -ku ~ -·ku ~ -ŋu ~ -ŋa- ~ -u ~ -· ~ -ϕ goal (direct-indirect) as in ŋaniyi n^yinta t̯uṇi what are you laughing at? ; ŋayi n^yinku t̯uṇi I'm laughing at you; n^yinta ŋayu n̯awun̯a you saw me

-la ~ -ŋka ~ -ta ~ -ṭa ~ -t^ya ~ -ḷa ~ -ṇi ~ -a ~ -wa ~ -· locative as in ŋuraŋka in the camp ; paRkarala on the plain ; maṇpura on the knee; maṇṭa· on the stone

-waṭa ~ -kaṭa ~ -·ṭa ~ -wali ~ -kuru ~ -wuru allative as in ant^{y}iluwaṭa towards Onslow; ŋura·ṭa to the camp; kankalawuru upwards

-waRi ~ -paRi comitative as in ŋaraṇma n^yinta t̯uŋkawaRi pulawaRi hit him with a lump of earth!

-yaḷa ~ --·ḷa possessed of as in ŋayi kanaŋkariṋa ŋamaRiyaḷa I came with tobacco

-warimaṛa ~ -karimaṛa privative as in yirawarimaṛa toothless

-waṇayi causal as in ŋaniwaṇayi because of what?

The following suffixes have privileges of occurrence with at least some subclasses of both nouns and verbs:

-ŋu ~ --·ŋu ~ -yaŋu ~ -ṋu elative (with nouns), subordinative (with verbs) as in puriṇma ṋa· kuriyaṛa waluŋkaŋu ŋaʒalanŋu pull this spear out of my thigh!; maṇṭa·ŋu from the stone; ṋama ŋuṋu piṇṭiri pinpaŋu see those stars twinkling!; warayi pa·ṇa ṱuḷayi paŋayimaṇu the flies bit his eyes, 'bunging' them up

-ŋuli stative (with nouns), passive (with verbs) as in ŋayi muʒuŋuli I'm cold; ŋayi pa·ŋuliṋa waḷuŋku I was bitten by a snake (compare the active transformation of the sentence waḷu pa·ṇa ŋayu a snake bit me)

-wiyima- causative as in ŋaʒiwiyimanma make him cry!

The following are closing suffixes:

-wa continuative as in yura ŋayu kampakuwa the sun is burning me

-mu ~ -·nmu ~ -wara time, state (with nouns), simultaneity (with verbs) as in waruŋkamu tomorrow; kunt^{y}imu alone (kunt^{y}iri one); paŋkarayimu ŋayi t^{y}irakariṋa I jumped while I was walking along (paŋkari- ~ paŋkara- to go, walk)

-mpa dubitative, interrogative as in ŋarimpa pawa yuramala is there water in the soak? (ŋari- to lie; pawa water; yurama soak).

-ṱu is the disjunctive suffix which occurs in cross-reference with the verb suffix -yi past conditional (q.v.).

As is general in Australian languages, noun and verb stem classes are very clearly separable in Jindjibandi by virtue of the restrictions on their privileges of cooccurrence with divisive suffixes. Only two noun-verb stems are attested--karkali ~ karkali- vomit, to vomit, and waŋka ~ waŋka- language, to speak.

Certain Jindjibandi stems have alternants which are used only in addressing mother's brother, e.g. waṋṱaṇi pilawarwa where are you going? (to MoBr), but waṋṱaṇi n^{y}inta paŋkari where are you going? (to non MpBr).

5. Kariera-Ngaluma, /kaRiyara/ and /ŋ aḷuma/, which share a cognate density of 79 percent, have identical phonological systems and differ negligibly in morphosyntax. For this reason only Ngaluma is treated in detail in this section. Kariera is numbered 480 on Greenway's map, and is located at 21° S and 117° E. Both dialects have less than 20 speakers. The sources for Kariera are a list of kinship terms in Radcliffe-Brown(1913), and brief field notes collected by O'Grady in 1954 and by Hale in 1960. Ngaluma is far better attested: in Curr(1886), Yabaroo(1899), Withnell(1901), Clements(1903), Radcliffe-Brown(1913), O'Grady(1954)(field notes), and in extensive tape recordings and transcriptions recorded by Hale in 1960. Kariera-Ngaluma is a member of the Ngayarda subgroup of the Southwestern Group of the Pama-Nyungan phylic family.

The linear phoneme inventories of the two dialects are identical and are charted below.

p	ṱ	t	ṭ	t^y	k		
m	ṋ	n	ṇ	n^y	ŋ	i	u
	ḽ	l	ḷ	l^y		a	
		r	ṛ			± length	
w			R	y			

Vowel length is found, but bears a low functional load.

Kariera-N'galuma and Kurama-Jindjibandi share several structural features with Lardil /Re·ṱil/, spoken on Mornington Island in the Gulf of Carpentaria. The most important of these is the existence of active-passive transformations, which are possible in very few Australian languages.

Stem classes in both dialects are verbs, nouns, and particles. Ngaluma N_p (pronouns), the only person-marking mechanism in the language, are listed below, followed by N_i (interrogatives).

Actor	Goal	Possessive	Locative	
ŋayi	ŋat^{y}u	ŋat^{y}uṱaṇṭu	ŋaṱala	I
ŋali	ŋaliku	ŋalikuṱaṇṭu	Ŋalila	we du incl
ŋaliya	ŋaliyaku	Ŋaliyakuṱaṇṭu	Ŋaliyala	we du excl
ŋalikuRu	ŋalikuRumaŋu	ŊalikuRumaŋuṱaṇṭu	ŊalikuRul̥a	we pl incl
ŋaraṇa	ŋanaṇaŋu	Ŋanaṇaŋuṱaṇṭu	Ŋanaṇaḷa	we pl excl
n^{y}inta	n^{y}iŋku	n^{y}inkuṱaṇṭu	n^{y}intala	you sg
n^{y}intapula	n^{y}inkulaku	n^{y}inkulakuṱaṇṭu	n^{y}intapulala	you du
n^{y}intakuRu	n^{y}inkuRumaŋu	n^{y}inkuRumaŋuṱaṇṭu	n^{y}intakuRul̥a	you pl
ɲ̭uṭu	ɲ̭uṇa	ɲ̭unaṱaṇṭu	ɲ̭uḷa	he, this one
palu	paṇumpaŋu	pan̥umpaŋuṱaṇṭu	palula	he, that one (mid-distant)
ŋuṋu	ŋuṇa	Ŋun̥aṱaṇṭu	Ŋula	he, that one (far)
plaukuṱa	palukuṱaku	palukuṱakuṱaṇṭu	palukuṱala	they du (mid-distant)
ŋuṋukuṱa	ŋuṋukuṱaku	Ŋuṋukuṱakuṱaṇṭu	Ŋuṋukuṱala	they du (far)
palukul̥a	palukul̥aku	palukul̥akuṱaṇṭu	palukuḷala	they pl (mid)
ŋuṋukul̥a	ŋuṋukul̥aku	Ŋunukul̥akuṱaṇṭu	Ŋuṋukul̥ala	they pl (far)
ŋana	ŋanaŋu	Ŋanaŋuṱaṇṭu	Ŋanala	who?
ɲ̭ala	ɲ̭alayi	ɲ̭alataṇṭu	ɲ̭alaŋka	what?

The possessive and locative forms are expandable, as in n^{y}inkuRumaŋuṱaṇtupuRaṱaṇṭuku the one (goal) belonging to those (pl) of you pl; ŋaṱalaŋuRu from me.

Series 1 of Ngaluma verb suffixes is occupied by -ri- reciprocal as in ŋuṋukuṱa pin^{y}ariku they du are fighting.

Series 2 of status quo verb suffixes, which are divisive, is listed below.

-ŋa ∼ -ṋa past as in ŋayi pat^{y}aṇa I ate it; ŋayi ṱalkuṋa I hit it; ŋayi paṇiṋa I sat

-lku ∼ -ku present as in ŋayi pat^{y}alku I'm eating it; ŋayi paṇiku I'm sitting; ŋayi waṋṱarku I'm putting it

-Ru ∼ -u ∼ -yi future, future conditional, purposive as in ŋayi pat^{y}aRu I will eat it; ŋayi waṋṱaru I will put it; ŋayi paṇiyi I will sit down; ŋayi kuntiku wakayi I don't want to go; n^{y}inta kaṭaṱaRu ŋuṇa waṇṭayi if you chop that tree...; ŋayi ṱalkuRu I will hit it

-nma ∼ -ma imperative as in pat^{y}anma eat it!; ṱalkuma hit it! paṇima sit down!; waṋṱarma put it!

-lkat^{y}i ∼ -kat^{y}i past conditional (apodosis) as in n^{y}inta ṱuṇiŋuRuṱa // ŋuṋu n^{y}inku ṱalkukat^{y}iŋuRu# had you laughed, he would have hit you

-lpaṱaṇ ∼ -paṱaṇ usitative as in ŋayi maŋkuḷal^{y}i / maRuyi waṇṭayi kaṭaṱalpaṱaṇ# when I was a little boy, I used to chop down lots of trees

-pit^{y}i admonitive as in n^{y}inta ŋayinŋalipit^{y}i you might be thrown (as from horse)

The following verb suffixes, also of series 2, are nominalizing and non-divisive:

-puṛu descriptive as in pat^{y}apuṛu cheeky

-maRa ∼ -ṋari agent as in muṭimaRa a good runner; ṱuṇiṋari a good laugher

-kuyini habituative as in t̯uṇikuyinipa paṇiku he's an incessant laugher

-lpun̯t̯ari instrument as in yirakalpun̯t̯ari sharpener (yira-ka- to sharpen it); kampalpun̯t̯ariku lighter (goal)

Reflexivity is marked by the noun maRapiriŋu as in t̯uṇṭanma maRapiriŋu rub yourself! Suus-possession (in contrast to ejus-possession) is marked by piriŋu as in ŋun̯u kal̥palku piriŋuku kuṇṭalku he is bringing his own daughter--that is his own in contrast to his (another's daughter).

Reduplication is possible with a limited number of nouns as in maṇṭamaṇṭa stony (maṇṭa stone).

Nondivisive noun suffixes are listed below.

Verbalizing

-ka- transitivizer as in kumakalku he is gathering (them) together (kuma together); n^{y}inta ŋat^{y}u min̥ukaRu ŋal̥umaku waŋkayi ↑ will you teach me the Ngaluma language? (min̥u clever, knowing)

-t^{y}a- ~ -ri- ~ -i- intransitivizer as in ŋun̯u kumput^{y}alku he is urinating; muramurariku it is swelling; ŋun̯u kalkaḷin̯a he vomited (kalkaḷ vomit)

Status Quo

-kuru descriptive as in kuṇṭurkuru dusty (kuṇṭur dust)

Number

-kut̯a dual as in mul̯akut̯a two ends (mul̯a nose, end)

-puRa ~ -kuḷa plural as in ŋalikuRu kumakaRu kukunt^{y}ayipuRaku let's muster the sheep!; palukul̥a they pl (mid-distant)

-kara ~ -wara ~ -yara paired kin as in yakaṇkara FaFa and FaMo or MoFa and MoMo

-maliŋka plurally grouped kin as in yakaṇmaliŋka three or more of grandparent category

The suffixes listed below are divisive for nouns.

Relational$_1$

-ṱaṇṭu possessive as in papa kaḷpaŋŋaliyi maɲaŋka ŋatʸuṱaṇṭuḷa water will be brought by my wife

Relational$_2$

-yi ~ -wi ~ -ku ~ -ŋu goal (direct-indirect) as in maɲa ŋatʸuṱaṇṭu kaḷpaRu papayi ŋalikuṱaṇṭuku my wife will bring our (du incl) water; piṇṭuwi chest, goal; ṱampuḷaŋu Tumbler (personal name), goal

-la ~ -ḷa ~ -ŋka ~ -ka ~ -a ~ -ta ~ -ṭa ~ -tʸa locative, instrumental as in wilkaRala on, by the shoulder; maɲaŋka on the wife, by the wife; waṇṭaka at, with a stick; maṇpura on the knee; manʸtʸaṇṭa on the bed

-ṱaṭa ~ -kaṭi ~ -kuru ~ -waḽaRa allative as in nʸinkuṱaṭa towards you; mantukaṭi towards the outside; ŋuṋukuru thither; ŋayi ṱayaRu miḷimiḷiku yiramakaṱuwaḽaRa I'll send a letter to Roebourne

-waRi ~ -kaḷiRa possessed of as in palu ŋatʸu ṱalkuṋa waṇṭawaRi he hit me with a stick; ŋuntukaḷiRa having a cold (ŋuntu catarrh)

-yapa ~ -tʸun privative as in papayapa waterless; nʸinta kurtʸaṭatʸun↑ have you no spear?

-kapu causal as in pampakapu because of sleep

The following suffixes occur in sequence with certain subclasses of verbs and nouns:

Series 1

-tʸirima- ~ -tʸi- causative as in puŋkatʸirimaṇa ŋatʸu he made me fall; kaḷpatʸilpuṋṱari lifter, jack (kaḷpa- to climb, go up)

Series 2

-nŋali- ~ -ŋali- passive (with verbs), stative (with nouns) as in kalp̥anŋaliyi it will be brought; waṋṱarŋaliku it is being put

Series 3

-ŋuRu ~ -n̥uRu ~ -n̥i elative (with nouns), subordinative (with verbs) as in wan̥t̥akaŋuRu from the tree; yawat̥alaŋuRu from the horse (yawat̥a horse); ŋaṱalaŋuRu from me; kankaṇi from above; wan̥t̥a n^{y}intala puŋkat^{y}irimanŋaliŋuRu// paŋkaḷpinŋaliyi# when the tree is felled by you, it will be split (by you); kat̥aṱaṇuRu having chopped it.

The following is a nonclosing disjunctive suffix:

-l^{y}i temporal as in ŋayi maŋkuḷal^{y}i when I was a little boy...; muṱumuṱulal^{y}i while it's still cool (muṱu cold); paraRuru ṱuṋṱukal^{y}ipa ṋakuRu n^{y}inku ParaRuru (personal name) will see you tomorrow.

The following are closing disjunctive suffixes:

-pa relative as in min̥awara / mirkawan̥iŋuRupa // ŋayi kat̥aṱaRu wan̥ṭayi maRuyi# by-and-bye, when I grow up, I'll chop down lots of trees

-lpa emphatic as in yit^{y}alalpa now; wakayilpa he will go; ŋaṭil^{y}ilpa again.

-ṱa conditimnal (past or future) as in ŋayi mit̥aṱa kat̥aṱaṇuRu ŋun̥a wan̥t̥ayi / palu puŋkakat^{y}iŋuRu yika# if I hadn't chopped down that tree, it would have fallen anyway; ŋayi min̥awaraṱa kaḷint^{y}ariyi paruRariŋuRuṱa // ṋakuRu n^{y}inku ŋaṭil^{y}ilpa# if I come back by-and-bye after a long time, I'll see you again.

Ngaluma compounding is exemplified in mirka-wan̥i- to grow up, in which mirka big is a noun, and -wan̥i- is the compound-included alternant of the verb stem pan̥i- to sit, be, become. In ŋayi kuḷkawan̥iku ŋat^{y}uṱaṇṭuku n^{y}upayi I'm thinking of my wife, kuḷka ear + -wan̥i- = to think of, to worry about.

In Pandjimi, Kurama-Jindjibandi, and Ngaluma, a noun syntactically governed as *goal* by a verb is not marked for goal if the verb is marked for *imperative*. Attesting examples from Ngaluma are: kulumanma muḽakuṱa *join the two ends!* but ŋayi kulumaRu muḽakuṱaku *I will join the two ends,* ŋayi kulumaṇa muḽakuṱaku *I joined the two ends*; ṱukuṱanma maŊkuRu *spear the kangaroo!*, but n^{y}inta ṱukuṱaṇa maŋkuRuku *you speared the kangaroo.*

In Kariera, not treated separately because of its very close relationship to Ngaluma, a noun which is syntactically *goal* is not marked for goal if the governing verb is marked for *imperative* or *future.* Attestation follows: pirala pat^{y}aṇa ŋayi mantuyi *yesterday ate I the meat*; pat^{y}alku ŋayi mantuyi yit^{y}ala *am eating I the meat now*; patakari ŋayi pat^{y}aRu mantu *tomorrow I will eat the meat*; pat^{y}anma mantu *eat the meat!* The preceding sentences incidentally illustrate the syntactic flexibility which characterizes many Australian languages.

As in Jindjibandi, so in Ngaluma, certain stems have alternants which are selected in the context of addressing mother's brother, as in yunayinma ŋat^{y}u *give it to me!* (to MoBr), but yuŋkuma ŋat^{y}u *give it to me!* (to non-MoBr); waṋṱaṇi n^{y}inta muṭiyaŋkaku *where are you going?* (to MoBr), but waṋṱaṇi n^{y}inta wakaku (to non-MoBr).

6. Mardudunera /maṭaṱuniRa/, numbered 493 on Greenway's map, is located at 21° S and 116° E. There are not more than ten speakers. The only linguistic data comprise a 100-item lexical text list independently re-

corded by Sharpe in 1957 and by O'Grady in 1958. Mardudunera belongs to the Ngayarda subgroup, and is a separate language, sharing a cognate density of 54 percent with Ngaluma, its eastern neighbor, 64 percent with Kurama, and 68 percent with Noala, which bordered it on the southwest. On the basis of the above lexical list, the phoneme inventory for Mardudunera is identical with that for Bailko-Pandjima.

7. The inland neighbor of Mardudunera, Binigura /pinikura/ (numbered 495), is apparently extinct, as is also the next language to the southeast, Tjuroro /t^{y}uruRu/ (number 496). A few words of the latter remembered by a Kurama informant indicate that Tjuroro (and hence also probably Binigura) is to be classified within the Ngayarda subgroup.

8. Noala /n̯uwala/, number 494, is situated at 22° S and 115° E. A lexical test list was independently transcribed by paterson in 1957 and O'Grady in 1958. It is unlikely that any speakers now survive. Noala shares 68 percent of its basic vocabulary with Mardudunera, its northeastern neighbor, but only 46 percent with Talandji, a Kanyaric language spoken immediately to its south.

The Noala phoneme inventory is identical with Bailko-Pandjima, given above.

KANYARA SUBGROUP

1. Talandji-Buduna /t̯alan^{y}t^{y}i/ and /puṭuna/ are numbered 517 and 516 respectively. Taladji is located at 22° S and 114° E, and Buduna borders it

to the east. The two are dialects of one language, sharing 79 percent cognates. There are several scores of speakers of Talandji, but less than a dozen of Buduna. The sources for both dialects are unpublished word-lists recorded by Paterson in 1957, and field notes and tape recordings made by O'Grady in 1958 and 1960.

In both Talandji and Buduna, the inventory of linear phonemes is identical with that listed for Bailko-Pandjima. Vowel length is phonemic in Talandji but bears a very low functional load. In Buduna, vowel length is more productive. In Talandji, lamino-dental /t̪/ has a voiceless stop allophone [t̪] in initial position, and a voiced fricative allophone [ð] intervocalically: /t̪anuwa/ vegetable food; /pit̪aṇ/ liver. Junctures are sentence-medial // (sustension) and +, and sentence-final ↑ (rise) and # (fall and fade-out), in both dialects.

The following statements summarize Talandji interphonemic specification. The canonical shapes posited for the syllable are CV and CVC. Vowels do not occur word-initially or in cluster with other vowels. All consonants occur in intervocalic position. /p t̪ ṭ t^y k m n̪ n^y ŋ w y/ occur initially; /n ṇ n^y l r/ occur word-finally. Consonant clusters occur only in word-medial position and include sequences of homorganic nasal and stop /mp n̪t̪ ṇṭ n^{y}t^y ŋk/ in addition to /nk ṇk n^{y}k ṇp lp ḷp l^{y}p lk ḷk rp rk nm t̪k ṭk/.

In both dialects, stem classes are verbs, nouns, and particles. The Talandji N$_p$ (pronouns) are listed below. In this and in all other languages in Western Australia which are located south of the 22nd parallel of latitude, the inclusive-exclusive distinction of the nonsingular first person pronouns, marked in the languages to the north, is lacking.

Actor	Direct Goal	Indirect Goal, poss.	Locative	
ŋat̯a	ŋat̯an̯a	t^{y}uṭi	ŋat̯ala	I
ŋali	ŋalin̯a	ŋalima	ŋalila	we du
ŋan̯uru	ŋan̯urun̯a	ŋan̯urumu	ŋan̯urula	we pl
n^{y}inta	n^{y}intan̯a	n^{y}intama	n^{y}intala	you sg.
n̯upala	n̯upalan̯a	n̯upalama	n̯upalala	you du
n̯ura	n̯uran̯a	n̯urama	n̯urala	you pl
ŋun̯a	?	ŋupa	?	he
t̯ana	t̯anan̯a	t̯anama	t̯anala	they pl

Series 1 of Talandji verb suffixes is comprised of -mari- reciprocal as in ŋanuru waŋkamarin̯a kamparin^{y}t^{y}i we pl have been talking to one other for a long time (waŋka- to talk).

Series 2 of status quo verb suffixes are divisive and are listed below.

-ṇa ~ -n̯a past as in ŋat̯a pat^{y}an̯a muḷa I ate the meat; ŋat̯a punin̯a I went

-lkin ~ -n present as in ŋat̯a pat^{y}alkin n^{y}uwaṭi muḷan̯a I'm eating the meat now; ŋat̯a punin I am going; ŋat̯a waŋkayin I'm speaking

-Ru ~ -t̯u ~ -u future, purposive, hortative as in ŋat̯a pat^{y}aRu muḷan̯a ~ ŋat̯a pat^{y}aRu muḷa I'll eat the meat; ŋat̯a punit^{y}ipaRu I'll make him go; ŋat̯a punit̯u I'll go; wan̯t̯aru kat̯at^{y}um^{y}t^{y}i (I'll) give it (to you) tomorrow

-n ~ -puka ~ -ϕ imperative as in pat^{y}an muḷan̯a eat the meat!; t̯amuwaku wan̯t̯arpuka give (me) some food!; waŋka ŋat̯ala tell me!

-yara ~ -wara ~ -ra plural actor as in piRuŋkariyara they are ashamed; n̯akuwara they see; waŋkara they talk

Reflexivity is marked by the particle yuŋara ~ yalpu as in ŋ̯ata yuŋara wuṇṭana I cut myself; ŋaṱa t^{y}ukara yalpu wanpayiṇa I hit my foot. It appears that the two reflexive morphs are in free variation and that yalpu is a loan-reflex of English self.

Nondivisive noun suffixes are listed below.

Verbalizing

-la- forms transitive verbs as in kaḷalaRu you should light a fire (kaḷa fire)

-ri- forms intransitive verbs as in t^{y}ukarariyara they pl made footprints (t^{y}ukara foot, footprint); -ri- also occurs in sequence with the particle ŋuḽa no, e.g. kaḷa ŋuḽariṋa the fire went out

Status Quo (word class remains):

-n^{y}uŋu as in ṱaRan^{y}uŋu joey, young of kangaroo (ṱaRa pouch of kangaroo)

Number

-t^{y}ari ~ -n^{y}t^{y}ari plural as in kan^{y}aRat^{y}ari men.

Dual number is marked by the independent noun kuṱara two: kaṱara kan^{y}aRa punin two men are walking along.

Below are listed noun suffixes, of which all but the first two are divisive for nouns:

-lu ~ -ŋu ~ -∅ ergative as in kapaḷalu mukat^{y}aṇa ŋaṱaṋa maRa the dog bit me in the hand; ŋanalu pat^{y}aṇa muḷa who ate the meat?; maRaŋu with (his) hand; ŋaṱa ŋ̭uṇṭimaṇa paḷkaraRaṋa I killed a plains kangaroo

-ṋa direct goal (see above examples)

-ku ~ -ŋu ~ -ma indirect goal, possessive as in ŋaṱa waṱarin kapaḷaku I'm looking for the dog; kapaḷaku muḷa the dog's meat; ŋanuruŋu our pl; ŋaṱa n^{y}intama waṱariṋa I was looking for you

-ŋuRu ~ -paṇṭi elative as in ŋaṱa wakatariṋa ŋaraRiŋuRu I returned from the *camp*; waṋṱapaṇṭi, n^{y}inta panakariṋa *where did you come from?*

-ŋa *locative* as in muḷa waṋṱan ka ḷaŋa *put the meat in the fire!* mutukaŋa *in the car*

-kuruna ~ -warala ~ -puRa *allative* as in ŋaraRikurunu *to the camp*; ant^{y}ilukurunu *to Onslow*; ŋuṋupuRa *thither*

-waṭu *possessed of* ŋaṱa kayiluwaṭu *I have water*

-piriṱa *privative* as in ŋaṱa kayilupiriṱa *I have no water*

The following suffix has privileges of occurrence with some subclasses of both verbs and nouns:

-t^{y}ipa- *causative* as in ṭiŋkiṭiŋki waŋkat^{y}ipan *ring the bell!*; ŋaṱa n^{y}intaṋa mukul^{y}anit^{y}ipaRu *I'll make you laugh* (mukul^{y}ani- *to laugh*)

The suffix -ŋuli- is attested in sequence with nouns only, but is listed separately because of the expectation that it also has a passive-forming role as a verb suffix as in yalkunŋulin *he is hiccuping* (yalkun *hiccups*).

The emphatic suffix -ṱu ~ -ya is closing and disjunctive as in ŋaṱa punin ŋaraRikurunuya *I'm going to the camp!* paru ŋaṱaṱu *what about me?*

The Buduna pronouns are listed below in their *Actor* (non-ergative) forms.

ŋaya	*I*
ŋaḷi	*we du*
ŋuṋuru	*we pl*
ŋi·	*you sg*
ṋuwalu	*you du*
ṋuralu	*you pl*
ŋuṋa	*he*
?	*they du*
ŋuṋut^{y}ari	*they pl*

2. Bayungu /payuŋu/, with alternative spelling Baiong, is numbered 518 by Greenway, and is located at 23° S. and 114° E. There are about twenty speakers of the language. Brief field notes and a short text were recorded by O'Grady in 1958 and by Hale in 1960. Bayungu is a Kanyara language, sharing a cognate density of 63 percent with its northern neighbor, Talandji, 35 percent with Targari, to its southeast, and 51 percent with Jinggarda, to the south.

The Bayungu phoneme inventory is identical with that listed for Bailko-Pandjima. Junctures are the same as in Talandji. Bayungu and Talandji interphonemic specifications are virtually identical.

Stem classes are verbs, nouns, and particles. The Bayungu Np (pronouns) are listed below in their actor (non-ergative) forms.

ŋaṱa	I
ŋali	we du
ŋuṋura	we pl
n^y^inta	you sg
ṋuṇalu	you du
ṋura	you pl
ŋuṋa	he

Nonsingular third person forms are not recorded.

Bayungu divisive verb suffixes are listed below.

-nmayi ~ -nma ~ -ma past as in ŋaṱa pat^y^anmayi muḷaṋa I ate the meat; n^y^inta maḽinma you returned; ŋuṋa waṇima he fell

-n ~ -yi ~ ϕ present as in pumaran (he) is hitting it; ŋuṋa ŋuṇṭayi he is sleeping; ŋaṱa piRuŋkati nʸintaŋu I'm frightened of you

-Ru ~ -ṱu future, purposive as in ŋaṱa patʸaRu I will eat it; ŋuṋa ŋun̤taṱu he will sleep; tʸalaya mut̥amut̥a manat̬u run quickly to get him!

-ka ~ -ya imperative as in nʸintalu mapaRaka ŋat̬aṋa you give it to me!; patʸaka pilʸkuRa eat the liver! ; manaya mul̥a ŋat̬aŋu bring me (some) meat!; nʸinaya sit down!

-wal̥a subordinative$_1$ as in ŋat̬a ŋuḽalpu pal̥aṱari milan̤tawal̥a I don't want to leave

-ra usitative as in ŋaṱa waŋkara payuŋu I speak Bayungu

The suffix -ṱa subordinative$_2$ is obligatorily preceded by present as in nʸinta kayapati ŋaṱaŋu waŋkayiṱa nʸintala↑ do you hear me talking to you?; -ṱa is nominalizing, and is followed by the noun suffix -ku (q.v.) in the following example: ŋaṱa kut̥a kayapatima nʸintaŋu waŋkayiṱaku I didn't hear you when you spoke.

Reflexivity is marked syntactically, e.g. ŋaṱa yutaRu nʸuwat̥i ŋaṱaṋa I must scratch myself right away.

Nondivisive noun suffixes are listed below.

Verbalizing

-la- ~ -na- forms transitive berbs as in nʸintalu waṋṱakalaRu ŋaṱaṋa can you do anything for me?

-ri- forms intransitive verbs as in puḽuwariwal̥a in order to get cool (puḽuwa cold, cool).

Number

-nʸtʸari plural as in tʸipunʸtʸari sheep pl (tʸipu is a loan-reflex of English sheep)

Dual number is marked syntactically as in kuṱara tʸipu two sheep.

Below are listed noun suffixes, of which all but the first two are divisives. The suffix *ergative* would be divisive but for its occurrence in a zero alternant of extremely limited distribution (e.g. in sequence with ŋaṱa *I*). The suffix *direct goal* is incompatible with inanimate nouns; muḷa *meat* is grammatically animate.

-lu ~ -Ru ~ -ŋku ~ -tu ~ -ϕ *ergative* as in ŋanalu wulanma ŋaṱaŋu kayulu *who drank my water?*; kutt^{y}at̥aRu *with a spear*; t^{y}umpuŋku mal^{y}aranamayi ŋaṱaṋa *the pimple hurt me* (mal^{y}ara *sick*); ŋaṱa kut̥a kayapati n^{y}intaŋu *I don't hear you*; n^{y}an^{y}t^{y}iltu *the woman, ergative*

-ṋa *direct goal* as in ŋaṱa put^{y}urpan kapaḷaṋa *I see the dog*

-ku ~ -ŋu *indirect goal*, *possessive* as in ŋaṱa piRuŋkati mawuRiku *I'm frightened of the snake*; ŋaṱa piRuŋkati n^{y}intaŋu *I'm frightened of you*; ŋanaku ŋuṋa mul̥a *whose is that meat?*; ŋaṱaŋu ŋuṋa mul̥a *that meat is mine*; ṋaṭuku n^{y}inta mukul^{y}ani *why are you laughing?* (ṋaṭu *what?*)

-paṇṭi *elative*, *causal* as in ṋaṭupaṇṭi pil̥antarima *what did he die from?*; ŋaṱa ṱankama ŋaraRipaṇṭi *I came from the camp*

-ŋuRa *locative* as in ṱuŋkaRaŋuRa *in the sand*; ŋaraRiŋuRa *in the camp*

-kurunu ~ -la ~ -ϕ *allative* as in puniyi ŋaṱa ŋaraRikurunu *I am going to the camp*; ŋaṱa punima yat̥ila *I went to the river*; puṭiwara ŋaṱa puniṱu ṱampuŋu *by and by I'll go north* (ṱampuŋu *north*)

-wat̥u *possessed of* as in ŋaṱa kayuluwaṭu *I have water*

-piriṱa *privative* as in ŋaṱa kayulupiriṱa *I have no water*

-man̥u *concomitative* as in miru kutt^{y}at̥aman̥u *the spearthrower is for a spear* (kutt^{y}at̥a *spear*).

The suffix -ŋuli- is attested in the following sequences as in kal̥unŋuliyi ŋaṱa I'm sweating (kaḷun sweat); ŋaṱa puḽuwaŋ uliyi n^{y}uwaṭi I'm cold now (puḽuwa cold, cool).

The closing and disjunctive suffix -ṱu ~ -ya marks emphasis as in ŋaṱa waŋkaṱuya I'm going to talk!

3. Targari /ṭarkaRi/ appears as number 250 on Greenway's map, and is situated at 24° S and 115° E. Brief field notes were made by O'Grady in 1958 and 1960. There are from a dozen to a score of speakers. The highest percentage of cognates shared by Targari with any other attested language is 46 percent (which it shares with Buduna). Strictly speaking, it constitutes a subgroup. Similarities in grammar between Targari and Buduna lead us tentatively to include Targari in the Kanyara subgroup.

The Targari linear phoneme inventory is as listed for Bailko-Pandjima (XXIX. A. a. 3).

Targari stem classes are verbs, nouns, and particles. The Targari Np (pronouns) are listed below in actor (non-ergative) form.

ŋaṱa	I
ŋali	we du
ŋaṋṭura ~ -ŋaṋura	we pl
ṋura	you sg
ṋupala ~ -ṋupalu	you du
ṋurakaRa	you pl
ŋuṋa	he
ŋuṋa kuṱara	they du
ŋuṋut^{y}ari	they pl

Targari divisive verb suffixes are listed below.

-nʸtʸa ~ -tʸa past as in ŋanalu maṇinʸtʸa ŋanatʸu piru who ate my meat?; ŋaṱa waṋitʸa kuwari I fell down today

-Ra ~ -ṋa present as in ṋa·wu ṋura yarukariRa what do you sg want?; kuṱara kupiṋa two are sitting

-Ru future as in muru ŋaṱa maṇiRu piru tomorrow I'll eat the meat

-nma ~ -ma imperative as in wari ṋuralu maṇinma ŋanatʸu piru don't eat my maat!; kupama sit down!

-riRa plural actor as in wari kuṱiriRa they all went (wari all; kuṱi- to go).

Targari noun suffixes are listed below.

-lu ~ -ku ~ -ɸ ergative as in ŋanalu wikanʸtʸa piru ŋanatʸu who pulled my meat (out of the ashes)?; ŋaṱaṋa ṋanʸatʸa ṱuṇuku kuwari the snake saw me today (ṱuṇu snake); ŋaṱa ṋanʸatʸa ṱuṇa kuwari I saw the snake today

-ṋa direct goal occurs in sequence with pronouns only as in ŋaṱa ṋuraṋa puṱinʸtʸa I hit (past) you sg.

-wu indirect goal as in ṋa·wu for what? why? (ṋa· what?)

-la ~ -ka locative as in kat̥ayala during the night; kal̥aka in the fire

-kuriRa allative as in ŋaṱa punⁱRa t̥awunkuriRa kuwari I'm going to town now

-wari ~ -·ri possessed of as in ŋaṱa wakaRiwari I have meat; ŋaṱa papa·ri I have water (papa water)

-yiranʸu ~ -yira ~ -·ra privative as in ŋaṱa papayiranʸu ~ ŋaṱa papayira I have no water; ŋaṋura wakaRi·ra we pl have no meat.

4. Wadiwangga /watiwaŋka/ is not listed among Greenway's 554 tribal names. The sample of its vocabulary provided by Paterson in 1960 indicates conclusively that it is a member of the Kanyara subgroup, though sufficiently

divergent from any other Kanyara language to be regarded as a separage language. Wadiwangga is almost extinct. Its phoneme inventory appears to be identical with that listed for Bailko-Pandjima.

MANTHARDA SUBGROUP

1. Wariengga / waryaŋka /, numbered 521 on Greenway's map, is located at 24° S and 116° E. It is known only from a brief wordlist collected by O'Grady in 1958, and appears to be close to extinction. It shares a high of 45 percent of its basic vocabulary with Targari (to its west), as against 33 percent with Wadjeri (to its east).

The Wariengga linear phoneme inventory is as listed for Bailko-Pandjima.

2. and 3. Other members of the Mantharda subgroup are Tenma and Djiwali.

KARDU SUBGROUP

1. Maia

2. Jinggarda or Inggarda /yiŋkaṭa/ is numbered 522 and is located at 25° S and 114° E. It has at least two dialects -- northern and southern. Tape recordings and transcriptions were made by O'Grady in 1958 and by Hale in 1960. There are not more than ten speakers. Although the available evidence from cognate densities points to a closer relationship between Inggarda and its northern neighbor, Bayungu (51 percent), than between Inggarda and any other language, we classify Inggarda as belonging to the Kardu subgroup because of the large areas to its east and southeast which remain linguistically unknown, but which are probably occupied by languages or dialects linking Inggarda with the main group of Kardu languages. Inggarda is structurally more similar to Kardu languages to its east and south than to the Kanyaric languages to its north and northeast.

Northern Inggarda linear phonemes are as listed for Bailko-Pandjima. Junctures are as listed for Talandji.

Northern Inggarda stem classes are verbs, nouns, and particles. The Np (pronouns) are listed below in their actor (non-ergative) forms. First person actor forms are followed obligatorily but redundantly by suffixes marking identical referent.

ŋaṱaṇa	I
ŋalili	we du
ŋaṋula	we pl
n^{y}inta	you sg
ṋupalu	you du
ṋura	you pl
pan^{y}a	he
pula	they du
ṱana	they pl

The following suffix constitutes series 1 in Northern Inggarda verb morphology:

-lpari- ~ -pari- reciprocal as in ŋalili wiyarpalpariwunu you and I are going to have a fight (wiyarpa- to hit)

Suffixes of series 2, which are divisive for verbs, are listed below.

-lpurunu ~ -purunu ~ -puru past as in ŋaṱaṇa kampalpurunu I burned it; muḷapiyapurunu he died; ŋaṱaṇa wintirilpurunu I bit it. -lan^{y}anpa ~ -lanpa ~ -n^{y}i present as in ŋat̯aṇa wintirilan^{y}anpa I'm biting it; kaḷa kun̯t̯ul^{y}pilanpa he's chopping wood; n^{y}inan^{y}i he's sitting.

-lkunu ~ -kunu ~ -wunu ~ -wu ~ -Ruŋku future as in ŋaṱaṇanta kura t̯aḷalkunu I won't give it to you; ŋat̯aṇanta katkakunu I'll rub you; kaṇṭawiriwunu he will cry; winpiriwu he will bend down; ŋaṱaṇa winkaRuŋku I will pull it.

-kanu ~ -yanu ~ -∅ imperative as in t̯aḷakanu ŋat̯a kuka give me some meat! ; ŋaṭit^{y}u wapayanu come inside! ; n^{y}ina sit down!

-nu nominalizing as in t^{y}aṭinuŋuRu when he ate it, after his eating it.

The suffix -piya- occurs in sequence with some subclasses of nouns and with the negative particle wani; it forms intransitive verbs. Thus ŋaṱaṇa kura kamupiyan^{y}i I'm not hungry (kamu hungry); wanipiyan^{y}i it is finishing (wani no); muḽapiyapurunu he died (muḷa dead).

The suffix -Ri- is transitivizing as in puḽit^{y}imantu muḷaRipurunu wuRa the policeman killed the dog (muḷa dead).

Reflexivity and number are marked by reflexive and quantifying words; n^{y}intalu yuŋara pumarakanu you hit yourself! (yuŋara reflexive); kurika mayat^{y}i one man; kuṱara mayat^{y}i two men; wurayi mayat^{y}i many men.

A low number of nouns, those belonging to the subclass Nk (kinship terms), are bound forms in Northern Inggarda. This situation is not elsewhere attested in languages of the Southwestern Group. The suffix -ŋal^{y}a marks ego possessor, and the suffix -t^{y}uRa non-ego possessor. Examples are: ŋaṱaṇa pipiŋal^{y}awu waṱarin^{y}i I'm looking for my mother; waṋṱalu n^{y}intaŋu pipit^{y}uRa where is your mother?

Northern Inggarda noun stems whose cognates in other languages terminate in a closed syllable are expanded by the addition of -pa when not combined with a suffix. For example, Bayungu n^{y}an^{y}t^{y}il woman terminates in a closed syllable; the corresponding ergative form is n^{y}an^{y}t^{y}iltu. The ergative form for woman in Northern Inggarda is likewise n^{y}an^{y}t^{y}iltu, but the non-ergative actor form (and the direct goal) is n^{y}an^{y}t^{y}ilpa. Cognates for this terminal -pa are to be found in Watic, Badic and Marngic, as well as in

Kardic languages, mostly in noun morphology but occasionally (as in Nyanumarda) in verb morphology.

The following are Northern Inggarda relational suffixes, combinable with nouns:

-lu ~ -ŋku ~ -tu ~ -mpa ~ -Ø *ergative* as in kurika mil^{y}uRalu wintirilpuru wurayi wuRa *the one snake bit several dogs*; wuRaŋku wintirilpuru mil^{y}uRa *the dog bit the snake*; kaṱaṋampa n^{y}an^{y}t^{y}iltu t^{y}apil^{y}a paralpurunu *that woman brought a lizard*; ŋaṱaṇa wintirilpurunu *I bit it* -ṋa ~ -Ø *direct goal* as in ŋaṱaṇanta kitikitilkunu n^{y}intaṋa *I'll tickle you*; ṱaḷakanu ŋaṱa kuka *give me meat*! (Only some members of the noun subclass N_p are compatible with this suffix).

-wu ~ -ŋu ~ -ku *indirect goal, possessive* as in wuRawu kuka *dog's meat*; ṋa·wunpa waṱarin^{y}i *what are you looking for?*; ṱuṇiwunu n^{y}intaŋu *he will laugh at you*; kukimankuṇa maṇṭupat^{y}alan^{y}anpa *I want a cook*.

-paṇṭi *elative, causal* as in ṋa·paṇṭi kul^{y}pan^{y}i ŋaṋula *why are we pl sick*?; waṋṱawupaṇṭi n^{y}inta wapa *where do you come from*?

-ŋuRu *consequential* as in t^{y}aṭinuŋuRu *after his eating it*.

-la ~ -ŋka ~ -ta *locative* as in kuṱaralaṇa yanma yapuru ant^{y}uluyit^{y}a *I went north to Onslow on two occasions* (yanma is an apparent free variant of of yanapurunu *went*); karaŋka *on top* (kara *above*); karapaṇṭinpa waṇipurunu naṱala *you fell on me from above*.

-kurunu ~ -yit^{y}a allative as in ŋaṱaṇa yanma maRupura ṱanaṭikurunu *I went to the beach yesterday* (note: maRupura in sequence with Verb-past is *yesterday*, in sequence with Verb-future is *tomorrow*); yinin^{y}payayit^{y}a *to Carnarvon*.

-pari *possessed of* as in kukapari t̯ina wuRa ŋuṇṭan^{y}i *this dog has meat*.

-man^{y}t^{y}a *privative* as in ŋat̯aṇa mayat^{y}iman^{y}t^{y}a *I have no husband*.

Unlike languages to its immediate north, Northern Inggarda is able to mark some categories of person in alternate ways -- by independent pronoun or by suffix. *First person singular actor* is redundantly marked by ŋat̯aṇa (i.e. *I-I*), or by -ṇa suffixed to the first word of the contour span. Other person-marking suffixes are optional alternants of the independent pronouns (Np), and are likewise disjunctive, occurring almost always in sequence with the first word of the contour span. Series 1 mark *actor* and are listed below.

-ṇa *I* as in ŋat̯aṇa wut̯apiyan^{y}i *I'm cold*.

-li *we du* as in ŋalili parupiyan^{y}i *we du are tired*.

-la *we pl* as in kul^{y}pan^{y}i ŋan̯ula *we pl are sick*.

-npa *you sg* as in n̯a·wunpa paḷapiyan^{y}i *what do you want*?

Series 2 of disjunctive person markers refer to *goal* and are as follows:

-nta ~ -n *you sg*, *direct goal* as in ŋat̯aṇanta t̯aḷalkunu *I'll give it to you* (*give* governs direct goal or goals in most Australian languages); the allomorph -n occurs in discontinuous sequence with the pronoun pulan̯a *them du*, with a combined referent of *you du, goal* as in ŋat̯aṇan t̯aḷalkunu kuka pulan̯a *I'll give meat to you du*.

-ŋu *you sg, indirect goal* as in ŋat̯aṇuŋu kaṇkapurunu *I called to you*.

-lu *third singular indirect goal* as in yantakanulu *go to him*!

3. Malgana or Maldjana (?) /malkana/ is number 525 on Greenway's map and is located at 26° S and 114° E. There are possibly two, or at most three, speakers remaining. The sources are Curr (1886) and O'Grady (1958 and 1960). Malgana is a member of the Kardu subgroup. Malgana linear phonemes are as listed for Bailko-Pandjima.

4. Nanda /ṋanta/, number 529 on the map, is situated at 28° S and 115° E. There are two remaining speakers. The sources are Curr (1886), Hamersley (1957), and Hale and O'Grady (1960). There is a sharp linguistic break between Nanda and Nyunga dialects to the south: Nanda shares a cognate density of only 31 percent with Wadjuk, and hence is clearly a Kardu language. The existence of disjunctive person markers in Nanda corroborates this classification.

The Nanda phoneme inventory is as follows:

p	ṱ	t	ṭ	t^y	k	ʔ
m	ṋ	n	ṇ	n^y	ŋ	
	ḽ	l	ḷ	l^y		
		r				
w			R	y		

i u

a

± length

The occurrence of as many as seven linear distinctions among stops in Nanda is reached by no other language in southern Australia, and by very few in northern Australia.

Junctures are sentence-medial // and +, and sentence-final # ↑ !

Oral stops are phonetically lenis (voiceless word-initially and voiced word-medially). All oral stops are non-fricativized when following a homorganic nasal ; /p t^y k/ tend to be fricativized [ƀ đ^y ǥ] in other word-medial positions.

Canonical shapes of syllables are V, VC, CV, CVC. Vowel clusters do not occur. All consonants occur intervocalically. /p ṱ k m ṋ n^y ŋ w y/ occur word-initially ; /ʔ/ tends to occur word-initially in non contour-initial words, e.g. mal^{y}awa ʔuṱu ṋaʔi *I didn't see the dog*. Three consonants, /ʔ n^y r/, occur word-finally. The solitary three-member consonant cluster attested is /ʔn̤t̤/, as in ŋayi umaṋaʔn̤t̤a *I'll hit you*. Two-member consonant clusters consist of sequences of homorganic nasal plus stop, or have one of /n ṇ n^y/ as first member and /p k m ŋ/ as second; or one of /t ṭ/ as first member and /p k/ as second; or include in the cluster a glottal stop -- /ʔṱ ʔn ʔḷ ʔw ʔR ʔy/, and /Rʔ/.

In a sample of 100 Nanda stems, 5 were monosyllabic, 63 disyllabic, 31 trisyllabic, and one quadrisyllabic; the 100 stems comprise a total of 456 linear phonemes, of which 228 -- exactly half -- are vowels; 220 short vowels appear, and only 8 long vowels. /a/ is far ahead of the other short vowels in rank-order frequency with 102 occurrences, against 67 for /u/ and 51 for /i/. The long vowels have the following rank-order: four occurrences for /aˑ/, three for /iˑ/, and one for /uˑ/. For the consonants, stops account for 76 occurrences, nasals for 65, laterals for 14, flap /r/ for 20, and glides for 53. Among individual manner classes, the descending rank-order for stops is /p k t ṱ t^y ṭ ʔ/; for nasals /n m ŋ n^y ṇ ṋ/; for laterals /l ḷ ḽ/ (/l^y/ did not occur in the sample); and for flap and glides /w r R y/.

Nanda stem classes are verbs, nouns, and particles. Tense markers are divisive for verbs, and relationals for nouns. Particles are those stems which are incompatible both with tense markers and relationals. Verb stems are dependent (as in most Australian languages) and noun stems and particles are independent. Nanda nouns occur in human, nonhuman, demonstrative, numeral, interrogative, and pronoun subclasses. The divisive criteria for these subclasses are charted below. The symbol + denotes compatibility between a given subclass and a given suffix ; - denotes incompatibility.

	Indirect Goal, Possessive	Direct Goal	Ergative Overtly Marked	Plural	Emphatic	Indefinite
Human	+	+	+	+	-	-
Nonhuman	+	-	+	+	-	-
Demonstratives	+	+	+	+	+	-
Numerals	+	+	+	-	-	-
Interrogative	+	-	+	+	-	+
Pronouns	+	+	-	-	-	-

Nanda pronouns are listed below.

Actor	Direct Goal	Indirect Goal, Possessive	
ŋayi	ŋayiṋa	ŋayu	I
ŋayiṱara	ŋayiṱaraṋa	ŋayiṱarawu ~ ŋalinŋu	we du
ŋaṋu	ŋaṋuṋa	ŋaṋuŋu	we pl
n^{y}ini	n^{y}iniṋa	n^{y}iniyu	you sg
ṋupalu	ṋupaluṋa	ṋupaluŋu	you du
ṋura	ṋuraṋa	ṋuraŋu	you pl
in^{y}a	?	in^{y}awu	he, this one
ala	alaṋa	alawu	he, that one (near)
aṋa	?	aṋawu	he, that one (far)
alaṱara	alaṱaraṋa	alaṱarawu	they du (near)
kayi	kayin^{y}a	?	they pl

In Nanda, as in Northern Inggarda, verb stems fall into what for Australian languages is an unusually large number of morphophonemically determined subclasses. An operator of verb stem subclass substitution has limited productivity in Nanda, as inaRa-ṋiʔ it broke versus inaRa-ʔi he broke it, in which -ṋiʔ and -ʔi are two of the possible alternants of past. The full set of alternants of four divisive verb suffixes of series 1 -- past, present future, and imperative -- are tabulated below in sequence with one exemplifying stem for each subclass.

Past	Present	Future	Imperative	Stem Gloss
wan^{y}t^{y}aʔi	wan^{y}t^{y}akula	wan^{y}t^{y}a·n̯aʔ	wan^{y}t^{y}akaʔ	to spear it
n̯aʔi	n̯aka	n̯a·n̯aʔ	n̯akaʔ	to see (it)
aRamaʔi	aRamatka	aRaman̯t̯aʔ	aRamakaʔ	to cut it
wuRaʔi	wuRaŋkula	wuRan̯aʔ	wuRakaʔ	to shoot it
ŋalaʔi	ŋaluŋka	ŋanman̯t̯aʔ ~ ŋanman̯aʔ	ŋalaʔ	to eat, drink
at̯uʔi	at̯uRa	at̯unt̯aʔ	at̯urakaʔ ~ at̯ukaʔ	to burn it, to cook it
iŋiʔi	ikan̯t̯a	iŋan̯aʔ	iŋkaʔ	to give it
mati	manta·	man̯t̯aʔ	mataʔ	to take it
atpiʔ	atpi·	atpin̯t̯aʔ	atpikaʔ	to tie it
aṇṭiʔ	aṇṭiya	aṇṭin̯t̯aʔ	aṇṭikaʔ	to smell it
un̯iʔi ~ un̯u-	?	uman̯aʔ	umaʔ	to hit it
inŋapan̯iʔ	inŋapan̯a·	inŋapan̯aʔ	inŋapaʔ	to die
ikarin^{y}iʔ	ikataka ~ ikata	ikaran̯t̯aʔ	ikaʔ	to stand
iriṇṭin^{y}iʔ	iriṇṭiʔ	iriṇṭin̯t̯aʔ	iriṇṭakaʔ	to climb
waran^{y}iʔ	wara·	waran̯t̯aʔ	warakaʔ	to sing
pu·l̯ana	pu·l̯a·	pu·l̯an̯t̯aʔ	pu·l̯aʔ	to blow with the mouth
waŋkan̯aʔ	waŋkan̯a·	waŋkan̯aʔ	waŋkaʔ	to speak
yatkanu ~ yatka	yatkaŋkula	yatkan̯t̯aʔ	yatkaʔ	to go
wuriyari	wuriyari	?	wuriyara	to run

Other verb suffixes of series 1 are listed below.

-ra imperative progressive as in ikara keep standing!

-t̯aʔi optative as in inkaṭit̯aʔi let him kill it (inka-ṭi~inŋa-ṭi- to kill).

-kuʔ purposive as in ŋarikuʔ in order to camp

-nun̯t̯a past conditional (apodosis) as in n^{y}ini nuraŋkuʔt̯a yatkanu // ut̯uŋkinu at^{y}anun̯t̯a# if you had come to my camp, (my) dogs would have bitten (you).

-ʔḷaka subordinative as in alat̯aran̯a n̯aka yanta·ʔḷaka↑ do (you) see them du walking along?

-t̯a nominalizing as in alakanu ut̯u waRʔa at^{y}it̯awu 'that dog (is) bad for biting' = that dog is bad in that he bites.

The one member of series 2 is -yu ~ -ʔyu motion towards speaker as in wan̯t̯aŋun^{y}t^{y}u yatkayu where did you come from? ; alakanu apa akariyu ŋuraŋkuʔ brought that water to the camp.

Series 3 of divisive verb suffixes mark the category direct goal:

-n̯a first person nonplural as in aluŋku wuRʔaŋku wan^{y}t^{y}aʔin̯a ŋayit̯aran̯a he hit us du with a stone ; n^{y}ini· uman̯aʔn̯a ŋayin̯a you'll hit me; aRin^{y}t^{y}a n̯aʔin̯a did you see me? (aRi interrogative particle).

-ṇṭa second person singular as in n^{y}inin̯a n̯akaṇṭa he's looking at you ; ŋanalinu uṇuṇṭa who pl hit you?

-n̯t̯a third person nonsingular as in ŋaRaʔin̯t̯a (I) chased them ; n̯akaʔan̯t̯a wakaʔinu look at the snakes pl! ; ut̯aran̯a mal^{y}awa n̯aʔin̯t̯a I didn't see the two;

-n^{y}inta reflexive-reciprocal as in ŋayi naʔin^{y}inta I saw myself; nayitaralu un̯iʔin^{y}inta we du hit (past) each other.

Nondivisive noun suffixes are listed below.

Verbalizing

-pa- ~ -ṱa- ~ -ṭa- ~ -Ra- ~ -ma- ~ -·- forms intransitive verbs as in kala malʸawa inŋapaṋiʔ and I didn't die (inŋa dead); wiṋṱunʸirapaṋiʔ there is no wind (wind-privative-become-past); paḷaRa-ṭa- to be frightened ; uṱuŋku wumpuRaʔi the dog urinated (wumpu urine); yawaṭalu wuna·ʔi the kangaroo defecated (wuna excrement); wuḷi inimakaʔ call out (to him)! (wuḷi is a hortative particle; ini name).

-ṭi- ~ -ṇṭa- forms transitive verbs as in yawaṭawa inŋatiʔ I killed a kangaroo (inŋa dead); paḷaRaṇṭanu it frightened him.

Series 1 of Nanda relational noun suffixes is listed below. Members of series 1 also function as status quo stem formatives, i.e. they form nouns from nouns.

-wa° possessed of as in ṋupalu wuRʔawa°↑ 1. do you du have money? 2. are you du policemen? (wuRʔa 1. stone, metal 2. chain 3. money ; in the first of the discontinuous referents above, wuRʔa-wa° is money-having ; in the second, chain-having, i.e. policeman).

-nʸira privative as in aRunʸirawa I have no wife (aRu wife) ; ŋayiṱara wuRʔanʸira we du are 'broke'.

-ŋuʔunʸ ~ ŋu·nʸ similar to as in yanta·nʸtʸa nʸaḷuŋu·nʸ you walk like a woman ; inʸakanu putʸikæ t uṱuŋuʔunʸ yaku this cat is as big as a dog.

The following is series 2 of Nanda relational noun suffixes:

-lu ~ -·lu ~ -ŋku ~ ŋki- ~ -tu ~ -ṭu ~ -· ergative as in watʸanulu at̯uʔin̯a *the fire burned me* ; wutʸpala·lu inimatkan̯a *the white man called out*; apaŋku kulʸuRapan̯iʔin̯a *the rain wet me*; alu·n̯t̯u un̯iʔn̯a *those hit me*.

-n̯a *direct goal* as in ut̯aran̯awa yawaṭa (~yawaRa) inŋaṭiʔ *I killed two kangaroos*; nʸinin̯awa n̯akaṇṭa *I'm looking at you*; wuRʔawa·n̯awa n̯aʔi 1. *I saw the moneyed one* 2. *I saw the policeman*.

-wu ~ -·wu ~ -yu ~ -ŋu ~ -° *indirect goal*, *possessive*, *benefactive* as in nʸini ut̯uwunʸtʸu wat̯araRa↑ *are you looking for (your) dog?* ; nʸiniyu *to you sg* ; n̯upaluŋu *to you du*, *your du*; wan̯t̯a ut̯u· t̯uruRa *where is the dog's meat?* (ut̯u *dog*; t̯uru *meat*).

-ŋu ~ -·ŋu *elative* as in inʸaŋuwa yatkanu *I went from here* ; munimayaŋu yatkaʔyu *(I) have come from Northampton*; katʸa·ŋu waRan̯t̯akaʔ *get down from the tree!*

-la· ~ -ŋkaʔ *locative* as in wi·nta inʸakanu wunŋaŋ̣u iraŋkaʔt̯a *this tree fell on top of me*.

-ŋkuʔ ~ -kuʔ ~ -wuRa ~ -ʔ *allative* as in ŋuraŋkuʔwa yanta· *I'm going to the camp*; kala akarin̯a ŋayin̯a taktakuʔ *and (they) took me to the doctor*; wan̯t̯awuRanʸtʸa yanta· *where are you going?* ; atʸinuʔ *to Ajana* ; tʸampinuʔ yatkanu *he went to Geraldton*.

Number-marking noun suffixes are listed below.

-t̯ara *dual* as in n̯akaʔ ŋu·tut̯ara alut̯aran̯a *look at those two horses!* ; ut̯uŋkut̯aranʸku wiRat̯a atʸaʔi *your two dogs bit my leg* (dog-ergative-two-your leg-my bite-past).

-nu ~ -ŋ̣- *plural* as in anmaṇilunu un̯iʔn̯a *the men hit me* (anmaṇu *man*,

3

person); aluŋkinu nʸaḷuŋkinu un̯iʔn̯a *those women hit me* ; ilu·ṇṭu atʸaʔi *these pl bit him*. The suffixes in the first two examples occur in the order *ergative-plural*, but in the last, *plural-ergative*.

The emphatic suffix -kanu ~ -ki occurs in sequence with demonstratives as in iŋkaʔn̯a alan̯akanu *give me that*! (alakanu *that, near*): an̯aki n̯awu *what's that yonder*? The suffix -ka is indefinitivizing as in n̯awukawa aṇṭiya *I smell something*.

The suffix -ru marks relative clauses as in alu· ut̯uru itʸa·ʔ // un̯iʔn̯a# *that one who has the dog hit me*.

The following series of nondivisive person markers have *possessive* or *benefactive* referent when in sequence with nouns, and *indirect goal* referent when in sequence with verbs:

-t̯a ~ -t̯u *first person singular* as in ut̯ut̯a iŋapan̯iʔ *my dog died*; apat̯a man̯t̯aʔ *will you get me some water*?; alalu pil̯ara wanʸtʸaʔit̯a *he threw a spear at me*.

-nʸku ~ -ku *second person singular* as in milunʸku *your eye*; ŋaṇkurku *your beard* (ŋaṇkur *beard*); wutʸpala·lu wat̯aranʸku *the white fellow is looking for you*.

-Ra *third person nonplural* as in waŋa·lu alakanu tʸi·pu miluRa akari *that crow got the sheep's eye out*; wan̯t̯a t̯uruRa inʸat̯arawu ut̯ut̯arawu *where is these two dogs' meat*? ; ala ut̯uŋku wumpaʔiRa *that dog took it from him*.

-t̯'ana *third person plural* as in apali·nu inʸakanu pakutut̯ana *this is the* *children's bread* (pakutu *vegetable food*, *bread*).

The following disjunctive *actor* markers close the first (or rarely, the second) word of the contour:

-wa *first person nonplural* as in ŋ̮uraŋkuʔwa yantaˑ *we du are going to the camp*; piḽarawaˑ luwa atu watiʔ *spear-possessing-ergative-I there spear-past*, i.e. *if I had had a spear there, I would have speared him*; n^{y}iniŋ̭awa ŋ̭akaṇṭa *I'm looking at you*.

-n^{y}t^{y}V ~ -n^{y}a *second person singular* as in ŋanaŋ̭an^{y}t^{y}a ŋ̭aʔi *whom did you see?* ; ṱurun^{y}t^{y}u aRamakaʔ *you cut the meat!* ; apan^{y}a ŋayuˑ mati *did you get water for me?*

-nu *third person plural* waṋṱinu aliṇu yantaˑ *where are they going?*

Categories of person not accounted for in the suffix inventory are marked syntactically. Thus, nupalu ŋayiŋ̭a ŋ̭aka↑ *are you (du) looking at me?*

5. Bardimaya / paṭimaya/ , not listed by Greenway but apparently synonymous with his Widi / witi /(number 532), is located at 28° S and 117° E. The number of speakers is estimated at a score. The sources are Curr (1886) and Fink (1956). Bardimaya is classified within the Kardu subgroup.

6. Wadjeri / wat^{y}ara/ , number 513 on Greenway's map, is located at 25° S and 118° E. There are at least 100 speakers. The sources are tape recordings of lexical lists made by Fink in 1956, and further brief corpora elicited by O'Grady in 1958 and 1960. Wadjeri shares a cognate density of not more than 46 percent with any other attested language, and is therefore certainly a separate language rather than a dialect. It is a member of the Kardu

subgroup. A noteworthy structural characteristic is a series of disjunctive person markers similar in form and distribution to those of Northern Inggarda.

The inventory of Wadjeri phonemes is as listed for Bailko-Pandjima.

NYUNGA SUBGROUP

Wadjuk-Balardong-Wardandi-Minang /wat^{y}uk-paḷaṭɔŋ-waṭanti-minaŋ/, and numerous other named dialects constitute the Nyunga subgroup. The above quadruplet of dialects are respectively numbered 546, 543, 553, and 551 on Greenway's map. His 'tribes' numbered 542, 543, and 545-554 all spoke closely related dialects, and were located south of 30° S and west of 122° E. The number of active speakers of Nyungic dialects is close to zero, but numerous persons can still be found with a passive knowledge of a limited number of lexical domains. The principal sources for Wadjuk are Grey and Hutt 1841, and Moore 1884. Other sources are Lyon 1833, Salvado 1854, Curr 1886, and Bates 1914. Minang is briefly attested in Nind 1831. Lexical lists are provided for most dialects by Curr and Bates. Brief tape recordings and transcriptions were made by O'Grady and Hale in Balardong in 1958 and 1960. Tape recording was done in the same dialect by Elkin in 1959.

Because of limitations in the data, it is not certain whether the phones [ṭ ṇ ḷ] contrast with [t^y n^y l^y] in these dialects. It is probable that the consonant inventory for all Nyunga dialects is identical with that listed for Bailko-Pandjima. The vowel inventory of Wadjuk was apparently /i a u/, with phonemic vowel length carrying a low functional load; in Balardong and most other dialects, the vowels are /i e a o u/, with phonemic vowel length carrying a high functional load. The velar stop /k/ in Balardong is phonetically [q], e.g. /ke·p/ [qɛ·p] water.

In Nyunga dialects the usual Australian trichotomy of stem classes into verbs, nouns, and particles is apparent. The Wadjuk N_p (pronouns) are listed below in the intransitive actor (non-ergative) forms.

ŋanʸa	*I*
ŋali	*we du (siblings)*
ŋala	*we du (parent and child, uncle and nephew)*
ŋanik	*we du (husband and wife)*
ŋanana	*we du (brothers-in-law)*
ŋalata	*we pl*
nʸini	*you sg*
ŋ͓upal	*you du (siblings, or parent and child)*
ŋ͓upin	*you du (husband and wife)*
nʸuraŋ	*you pl*
pal	*he, she, it*
pula	*they du (siblings)*
pulala	*they du (parent and child)*
pulin	*they du (husband and wife)*
palkun	*they pl*

Examples including the first and second person singular forms are: ŋanʸa pat̥in *I am going*; nʸini paṭin *you are going*. As the subjects of transitive verbs, the corresponding forms are ŋatʸu and nʸuntu: ŋatʸu t͓a·n *I pierce it*; nʸuntu ŋ͓atʸak kapi ŋaŋ͓a kaŋkaw puRu *you why water my for-fetching not?* = *why don't you fetch me water?* (In Paḷaṭoŋ there is also a formal distinction made between *non-ergative* and *ergative* actor in the first and second person singular pronouns. Thus, ŋanʸ kut̥ kwap *I heart good* = *I an happy*; ŋatʸ t̥waṭ pa·minʸ *I hit the dog*).

Some of the more productive Wadjuk suffixes are listed below.

Suffixes in sequence with verb stems:

-ka *past*: ŋat^{y}u paliŋ̭ pumaka *I hit him*.

-n ~ -in ~ -win *present imperative*: pal n^{y}iniŋ̭ pumawin *he is hitting you*.

The absence of an overt marker betokens *future*. As the subject of future-referring verb-∅, the first and second person singular pronouns obligatorily occur in sequence with a suffix -l: ŋat^{y}ul yuŋa *I'll give it* (yuŋa *to give*); n^{y}untul watu *you'll go*.

The following noun suffixes are verbalizing:

-ap- ~ -p- *intransitive*, *inchoative*: pal irapin *he is arising* (ira *above*)

-it^{y}a- *transitive*: pal kwapanit^{y}awin *he is putting it in order* (kwapa *good*).

Dual number is marked in nouns by the independent noun kut^{y}al *two*. Plural is marked only in nouns having *human* referent, by the suffix -man (after vowels) ~ -kara (after consonants) ~ -ara. This suffix occurs adjacent to the stem: yakuman *women, nonergative actor*; yakumanal *women, ergative*; kulaŋkara *children* (kulaŋ *child*).

Relational noun suffixes, which follow *plural*, are listed below.

-al~-wal *ergative*: put^{y}ur yakuwal piyanaka *the ground was dug by a woman*; ṭuṭa kaṭal paṭuk paṭaka *the dog went away (near) with the cart* (paṭuk *near*; paṭa- ~ paṭi- *to go*).

-ak ~ -wak ~ -aŋ *possessive*, *allative*, *locative*: mamarapak kit^{y}i *man's spear* (mamarap *man*); tirpalaŋ *of the estuary*; yukak *towards York*: puṇuwak *on a tree* (puṇu *tree*).

-iŋ̭ *direct goal*: yankuriŋ̭ *kangaroo, goal*; ŋat^{y}u paliŋ̭ pumaka *I hit him*.

-katak *possessed of*: pul^{y}akatak *sorcerer* (pul^{y}a *sorcery*); pal kaṭukatak *he/she is married* (kaṭu *spouse*).

Reduplication is a Wadjuk operator having *intensative* as one of its referents: mul^{y}itmul^{y}it *very sweet* (mul^{y}it *sweet*).

The non-divisive -puRu ~ -paṭ occurs in sequence with nouns (with *privative* referent) or with verbs (with *negative* referent): ŋan^{y}a pukapuRu *I have no kangaroo-skin cloak*; ŋat^{y}u t^{y}inaŋpuRu *I do not see it*; ŋat^{y}u katit^{y}paṭ *I do not hear*, *I do not understand.*

The suffix -t^{y}il has *assertive* referent: tat^{y}at^{y}il *it's certainly meat* (tat^{y}a *meat*).

In almost all Australian languages, among referents for numbers, it is only the referents *one* and *two* — or at most *one*, *two*, and *three* — that are signalled monomorphemically. In Jindjibandi kunt^{y}iri is *one*, kuɣara *two*, and t^{y}arwuṭi *three*; in Nyangumarda waRat^{y}a is *one*, kut^{y}ara *two*, and *three* is optionally kut^{y}arwaRin^{y} (*two-other*) or kut^{y}arapawaRat^{y}a (*two-and-one*). In the Ngulibardu dialect of the latter language, an elaboration that developed recently--almost certainly only since the end of World War II--permits specification of higher numbers by marŋu *person*, paRir *hand*, and t^{y}ina *foot* as in the following example: marŋut^{y}iri // paRirt^{y}iri // t^{y}ina // kut^{y}arapakut^{y}ara# *two persons (40), two hands (10), foot (5), two-and-two (4)* = *fifty-nine.*

In light of the above, the data on Wadjuk numeration, excerpted from Grey (in Hutt 1841), is presented below.

kan^{y}	*one*
kut^{y}al	*two*
waRaŋ	*three*
puḷa	*many*
kut^{y}alinkut^{y}alin	*four*
maRat^{y}inpaŋka (*half the hands*)	*five*
maRat^{y}inpaŋkakut^{y}irkan^{y} (*half the hands also one*)	*six*
maRat^{y}inpaŋkakut^{y}irkut^{y}al (*half the hands also two*)	*seven*

maRat^{y}inpaŋkakut^{y}irwaRaŋ (half the hands also three) eight

maRat^{y}inpaŋkakut^{y}irkut^{y}alinkut^{y}alin (half the hands also two-two) nine

pilipilimaRat^{y}inpaŋka (both half pair of hands) ten.

MIRNINY SUBGROUP

1. Kalaku-Mirniny /kal̥aku/ and /miṇin^{y}/ are also referred to in the literature as West and East Mirniny. The former is known to some informants as Marlba /maḷpa/. These two dialects of the one language are numbered 541 and 539 by Greenway. The former is situated at 32° S and 122° E, and the latter at 32° S and 129° E. That is, the territory formerly occupied by speakers of this language extended at least 400 miles from east to west, but was relatively narrow, being bordered to the south by the ocean and to the north (for the greater portion of its length) by the uninhabited Nullarbor Plain. The East Mirniny held their last initiation ceremony in 1913 (Bates 1957), and soon afterwards dispersed as far west as Carnarvon in Western Australia, and eastward into the settled areas of South Australia. There are still perhaps ten speakers of East Mirniny, scattered over an area of a million square miles; West Mirniny living in the vicinity of Norseman are more numerous. The sources for both dialects are field notes and tape recordings collected by O'Grady and Hale in 1957, 1959, and 1960, as well as Curr's published lexical list for East Mirniny of 1886. East Mirniny shares a cognate density of 27 percent with the geographically nearest Wati dialect to its north, and 29 percent with Wadjuk.

The consonant inventories for West and East Mirniny are as yet indeterminate because of the lack of conclusive evidence of contrast between the lamino-dental phones [t̪ n̪ l̪] and the lamino-alveolar [t^{y} n^{y} l^{y}]. If, as is highly probable, the recording of further data in these dialects shows the difference between lamino-dental and lamino-alveolar articulation to be contrastive, then the consonant inventories for both would be identical with that listed for Bailko-Pandjima. The vowel inventories for both dialects are /i a u/, combinable with length.

In East Mirniny, stem classes are verbs, nouns, and particles; N_p (pronouns) are listed below.

ŋaṱu	I
ŋaṇṭaṱa	we du
ŋaṇṭami	we pl
ŋuṇṭu	you sg
ŋuṇṭukuṱa	you du
ŋuṇṭuŋari	you pl
paṋaṭu	he, she, it
paṋa kuṱara	they du
kayini (?)	they pl

Examples of pronouns in sequence with goal and possessive markers are: ŋaṇiya wamu my camp; ŋuṇṭiya ṱuṱu your dog; ŋaṱu ŋuṇṭukuṱaṋa puŋkuku I will hit you du; ŋaṇiya ṱuwi mura fetch meat for me! ; wipaRuŋu ŋaṇaṋa ṋaŋu the snake saw me (wipaRu snake; ŋaṇaṋa me).

2. Kalamai /kaḷamayi/ appears as number 535 on Greenway's map, and is situated at 30° S and 119° E. The inventory of Kalamai linear phonemes is identical with that listed for Bailko-Pandjima. The number of active Kalamai speakers, if any, is not more than a few. The sources are Curr 1886, and a short word-list recorded by Hale and Douglas in 1960. In view of the present lack of knowledge of possible dialect chains which might include Kalamai, the latter must be considered a separate language belonging to the Mirniny subgroup.

WATI SUBGROUP

1. Wanman /waṇman/ is not listed by Tindale or Greenway. The tribal territory was located at approximately 22° S and 123° E, but speakers of the language are now scattered over a wide area to the northwest of this location, extending all the way to the coast. The number of speakers is not known, but is probably a hundred or more. The sources are unpublished materials recorded by O'Grady in 1955 and by Hale in 1960. Wanman shares a high of 46 percent cognates with Yulbaridja.

The Wanman phoneme inventory is the same as that of the Western Desert dialects. Wanman /t^y n^y l^y/ are phonetically lamino-alveolar. Syllables occur in canonical shapes CV and CVC. Wanman lacks syllable-final /t^y/. Otherwise its interphonemic specification is identical with that of Yulbaridja. Word stress is on the initial syllable — hence predictable.

Wanman stem classes are verbs, nouns, and particles. Person-marking mechanisms are in all ways parallel to those of Yulbaridja, though the Wanman independent pronouns have no known cognates among other Australian languages. The non-ergative actor and direct goal forms of Wanman pronouns (non contour-initial) are as follows:

para	I
parakut^{y}ara	we du
parawaṭa	we pl
paraŋku	you sg
paraŋkukut^{y}ara	you du
paraŋkuwaṭa	you pl

Third person can be marked independently only by demonstrative:

palawanin	*he*, *she*, *it* (near)
palawaninkut^{y}ara	*they du*
palawaninwaṭa	*they pl*

Ergative is marked in pronouns and demonstratives (as in nouns in general) by suffix -lu: paralu, paralukut^{y}ara etc.; *possessive* by suffix -t^{y}ara: parat^{y}ara, parakut^{y}arat^{y}ara etc.; an *indirect goal* by -ku: paraku, parakukut^{y}ara etc. A longer sequence of suffixes with pronouns is exemplified in paraŋkukut^{y}arat^{y}aral *yours du, ergative*.

Warman is otherwise structurally very similar to Yulbaridja, as is shown in the following series of sentences: paraluṇaŋku paral^{y}i t^{y}inkan̥a paraŋkuku (or: paraluṇaŋku paral^{y}i t^{y}inkan̥a; or: paral^{y}iṇaŋku t^{y}inkan̥a; or: t^{y}inkan̥aṇaŋku paral^{y}i, etc, *I made a boomerang for you sg* (para-lu *I ergative*; -ṇa *I*; -ŋku *for you sg*; paral^{y}i *boomerang*; t^{y}inka- *to whittle, make — as boomerang*; -ṇa *past*; para-ŋku-ku *for you sg*). In the further exemplification which follows, glosses are cited only for morphemes not already glossed in previous sentences: n^{y}araluRa ŋurinpa pipiṇku paraŋkut^{y}araku *that one is looking for your mother* (n^{y}ara *he*, *that one distant*; -Ra *for him*, *her*, *it*; ŋuri- *to look for*; -npa *present*; pipiṇ *mother*; para-ŋku-t^{y}ara-ku *for your*). The suffix -Ra, along with all other person-marking suffixes, occurs in sequence with the first word of the contour only; any of the 23 remaining possible word-order permutations of the above four-word sentence are theoretically possible — though not all are attested — and would certainly be understood and would be indifferently translated into English by the gloss given above. Hence *pipiṇkuRa ŋurinpa paraŋkut^{y}araku n^{y}aralu, etc. paralukut^{y}aralit^{y}anta puŋku paraŋku (or: paralukut^{y}aralit^{y}anta puŋku; or: puŋkulit^{y}anta paralukut^{y}ara; or: puŋkulit^{y}anta, etc.) we du excl will hit you sg (-li we du incl; -t^{y}a exclusivizer; -nta you sg, direct goal; pu- to hit; -ŋku future); n^{y}an^{y}an^{y}a he saw me (n^{y}a- to see; -n^{y}a past; -n^{y}a me); parakut^{y}arali yanku kut^{y}uŋurukaṭi (or: kut^{y}uŋurukaṭili yanku, etc.) we du incl will go to the sea (ya- to go; -nku future; kut^{y}uŋuru sea; -kaṭi allative); n^{y}aralukut^{y}arapulaŋan^{y}t^{y}uran^{y}a n^{y}aŋan^{y}a (or: n^{y}aŋan^{y}apulaŋan^{y}t^{y}uran^{y}a n^{y}aralukut^{y}ara) they du are looking at us pl incl (-kut^{y}ara dual; -pula they du; -ŋan^{y}t^{y}ura-n^{y}a us pl incl; -ŋan^{y}a present); mapirpaṇaṇin^{y}a wirkaṇa ṇayipulu (or: nayipuluṇaṇin^{y}a wirkaṇa mapir, etc.) I cut my hand with a knife (mapir ~ mapirpa- hand; -ṇin^{y}a direct reflexive; wirka- to cut it; ṇayipu (English loan) knife); t^{y}aṇṭukut^{y}araṇapulan^{y}a paralu kan^{y}inpa warukuḷakut^{y}ara (or: paraluṇapulan^{y}a kan^{y}inpa t^{y}aṇṭukut^{y}ara warukuḷakut^{y}ara; or: t^{y}antukut^{y}araṇapulan^{y}a warukuḷakut^{y}ara kan^{y}inpa) I have two black dogs (t^{y}aṇṭu dog; -pula-n^{y}a them du; kan^{y}i- to have, keep; warukuḷa black); parat^{y}arakuRan ṇinti wimiku↑ do you know my language? (-n you sg actor; ṇinti clever, knowing; wimi language); ŋanampakuRaya wimit^{y}unpa what are they talking about? (ŋana who?; ŋana-mpa what?); -ya they pl; wimi-t^{y}u- to talk); paraŋkut^{y}ara mamaṇpa ŋana ḷirka what is your father's name? (mamaṇ ~ mamaṇpa father; ḷirka name).

2.0. Kokata-Antikirinya-Ooldean-Warburton Ranges-Pintubi-Mount Margaret-Kardudjara-Yulbaridja (the first two are /kukat^{y}a/ and /antikirin^{y}a/ and the last two /kaṭut^{y}ara/ and /yuḷpaRit^{y}a/) is the most exaggerated example of an Australian family-like language--one extending from southeast to northwest for a distance of 900 miles. This family-like language is commonly referred to as Western Desert (Capell 1956, Douglas 1958). Numerous linguistic groups labelled separately by Tindale and Greenway--in addition to those dialects included in the above hyphenated assemblage--are almost certainly dialects of

Western Desert also. Confirmation of this assertion is assured, since the linguistic materials needed to attest it are gathered (but not published). Greenway's numbers corresponding to individual names in the above assemblage are respectively 307 (30° S and 134° E), 311 (27° S and 134° E), 308 (mostly now at Yalata Mission, 32° S and 132° E, but formerly 250 miles further northwest), 503 (26° S and 128° E), 329 (23° S and 129° E); the Mount Margaret community is now at 28° S and 122° E, but has moved there in recent decades from the northeast; Kardudjara is not listed by Greenway, but is approximately at 24° S and 123° E; Yulbaridja were at 20° S and 127° E before most of them moved westwards two decades ago to the coast between Wallal and Broome. The Western Desert family-like language thus has a north-south geographical spread equal to that of New Zealand. The total number of speakers of Western Desert is estimated at a number 'in the low thousands' (Douglas 1958). Sources are C. Strehlow 1910, Trudinger 1943, Douglas 1955 and 1958, Capell 1956 and 1962, and the linguistic surveys conducted by O'Grady (between 1953 and 1960) who was joined by Hale in 1959 and 1960. Kalamai and the Western Desert language comprise the Wati subgroup.

The phoneme inventory in all dialects of Western Desert so far attested is as follows:

p	t	ṭ	t^y	k			
m	n	ṇ	n^y	ŋ	i		u
	l	ḷ	l^y			a	
	r				± length		
w		R	y				

Junctures: Sentence-medial // (sustension) and + Sentence-final ↑ (rise) and # (fall and fadeout).

Allophony: /t^y n^y l^y/ are phonetically lamino-interdental in all environments in western dialects, including that of Mount Margaret; in Kokata, Antikirinya, Pintubi, Kardudjara and Yulbaridja, /t^y n^y l^y/ are phonetically lamino-alveolar in all environments; in the dialects of Warburton Ranges and Ooldea, /t^y n^y l^y/ have lamino-interdental allophones (preceding /a u/ or if preceded by another consonant of the same vertical series); in other environments lamino-dental allophones occur. In the Warburton Ranges dialect--and probably also in others--vowels are fronted preceding bilabial or laminal consonants; raised and retroflexed preceding retroflexed consonants; and backed before velar consonants. High vowels are lowered and /a/ is raised before apico-alveolars (/t n l r/).

The canonical shapes of syllables are V, VC, CV, and CVC in Kokata, Antikirinya, and Ooldean; but only CV and CVC in the remaining dialects.

Ooldean and Warburton Ranges dialects differ in minor degree--principally in the marking of person. In the following paragraph, Ooldean N$_p$ (pronouns) are cited (stem classes are verbs, nouns, and particles).

Actor	Direct Goal	Possessive	Indirect Goal, Locative	Gloss
ŋayulu	ŋayun^{y}a	ŋayuku	ŋayula	I
ŋali	ŋalin^{y}a	ŋalimpa	ŋalila	we du
ŋanaṇa	ŋanaṇan^{y}a	ŋanaṇampa	ŋanaṇala	we pl
n^{y}ura	n^{y}uran^{y}a	n^{y}urampa	n^{y}urala	you sg
n^{y}upali	n^{y}upalin^{y}a	n^{y}upalimpa	n^{y}upalila	you du
n^{y}uramuka	n^{y}uramukan^{y}a	n^{y}uramukampa	n^{y}uramukala	you pl
paluRu	palun^{y}a	palumpa	palula	he, she, it
pula	pulan^{y}a	pulampa	pulala	they du
t^{y}ana	t^{y}anan^{y}a	t^{y}anampa	t^{y}anala	they pl

The non-ergative and ergative actor forms of Ooldean pronouns are identical, e.g. ŋayulu ŋurakutu ŋalʸapitʸaŋu *I came here to the camp* and ŋayulu palunʸa nʸaŋu *I saw him* but (with non-pronominal nouns) wami ŋalʸapitʸaŋu *the snake came here* and wamiŋku palunʸa nʸaŋu *the snake saw him*. The suffix *ergative* is therefore not divisive for nouns. *Possessive* and *locative* are divisive. What is a first person singular actor marker in dialects further north, namely -ṇa, for example in ŋayulu pika ~ ŋayuluṇa pika *I am sick*, appears redundantly very occasionally in Ooldean utterances. There are otherwise no suffixial person markers in this dialect.

Douglas 1958 (Warburton Ranges dialect) and O'Grady for the Yulbaridja dialect are the sources of the following information.

2.1. Douglas lists nine separate intonational patterns which correlate with various attitudinal or emotional states in the speaker:

2-4	*authoritative*
1-4	*surprise*, *interest*
2-4-3	*deferential*
1-4-3	*mild surprise*, *detached interest*
3-1	*excitement*
3-2	*derision*
2-2	*fear*, *eagerness*, *excitement*
2-3-2	*impatience*
1-2-1	*curiosity*

Level 1 is high, level 4 low.

Warburton Ranges stem classes are verbs, nouns, and particles. The N_p (pronouns) are listed below.

Actor (Non-ergative)	Ergative	Direct Goal	Possessive	
ŋankulu	ŋankulu	ŋankun^{y}a	ŋankuku	I
yali ~ ŋankululit^{y}u	yali ~ nankululit^{y}u	yalin^{y}a	yaliku ~ ŋankukulimpa	we du
yala ~ ŋankululat^{y}u	yala ~ ŋankululat^{y}u	yalan^{y}a	yalaku ~ ŋankukulampa	we pl
n^{y}untulu	n^{y}untulu	n^{y}untun^{y}a	n^{y}untuku	you sg
n^{y}untulupula ~ n^{y}untulumpula	n^{y}untulupula ~ n^{y}untulumpula	n^{y}untun^{y}apula	n^{y}untuku pulampa	you du
n^{y}untuluya	n^{y}untuluya	n^{y}untun^{y}aya	n^{y}untuku t^{y}anampa	you pl
ŋa•n^{y}a	ŋa•lu	ŋa•n^{y}a	ŋa•ku	he, this one
palan^{y}a	palalu	palan^{y}a	palaku	he, that one (mid-distant)
n^{y}aran^{y}a	n^{y}aralu	n^{y}aran^{y}a	n^{y}araku	he, that one (far distant)
palun^{y}an^{y}a	palun^{y}alu	palun^{y}an^{y}a	palun^{y}aku	he, the one previously referre
kut^{y}arapulan^{y}a	kut^{y}arapulan^{y}a	kut^{y}aran^{y}apula	kut^{y}araku pulampa	they du
ŋa•n^{y}aya	ŋa•luya	ŋa•n^{y}aya	ŋa•ku t^{y}anampa	they pl, thes
palan^{y}aya	palaluya	palan^{y}aya	palaku t^{y}anampa	they pl, mid distant
n^{y}aran^{y}aya	n^{y}araluya	n^{y}aran^{y}aya	n^{y}araku t^{y}anampa	they pl, far distan
palun^{y}an^{y}aya	palun^{y}aluya	palun^{y}an^{y}aya	palun^{y}aku t^{y}anampa	they pl, those previously refer to
n^{y}arat^{y}inŋa	n^{y}arat^{y}intu	n^{y}arat^{y}inŋa	?	that other mob

The ŋanku- forms with first person singular referent came into use and replaced earlier ŋayu- forms only since 1950, subsequent to the death of a person named ŋayun^{y}a. The above forms are optional alternants of suffixial person markers, e.g. n^{y}untulu ŋankun^{y}a puŋu *or* n^{y}untuluṇi puŋu *or* puŋuṇin all have the identical referent *you hit (past) me*.

Below are listed non-divisive directional verb prefixes.

ma- motion away from speaker: mapit^{y}a go away!

ŋal^{y}a- motion towards speaker: ŋal^{y}apit^{y}a come here!

para- around: parapit^{y}aŋu he went around

wati- across: watipit^{y}a go across!

kuti- hunting: kutipit^{y}aŋu he went hunting

Verb suffixes of series 1--those immediately following the stem-- are divisive for verbs, and undergo alternation which is morphologically conditioned. Each of the conditioning morphophonemic subclasses of verb stems is exemplified below.

Past	Present; Perfect Participle	Future Completive (a)	(b)	Future Continuative	Initiative Imperative	
kulinu	kuliRa	kulilku	kulil- ~kuli-	kulinma	kulila	to hear
t^{y}unu	t^{y}unkula	t^{y}unku	t^{y}unku-	t^{y}unama	t^{y}ura	to put it
puŋu	puŋkula	puŋku	puŋku-	puŋama	puwa	to hit it
waŋkaŋu	waŋkara	waŋkaku	waŋka-	waŋkama	waŋka	to speak
ŋalaŋu	ŋalkula	ŋalku	ŋalku- ~ ŋa-	ŋalama	ŋala	to eat it
n^{y}aŋu	n^{y}akula	n^{y}aku	n^{y}aku-	n^{y}aŋama	n^{y}awa	to see it
ŋaRaŋu	ŋaRala	ŋaRaku	ŋaRa-	ŋaRama	ŋaRa	to stand
pit^{y}aŋu	pit^{y}alan^{y}i ~ pit^{y}an^{y}i	pit^{y}aku	pit^{y}a-	pit^{y}ama	pit^{y}a	to come
ṇintiriŋu	ṇintiriŋkula	ṇintiriku	ṇintiriŋku- ~ ṇintiri-	?	ṇintiriwa	to learn

The past of the kuli-subclass is marked by the alternant -nu following stem-final /i/, and -ṇu following /a u/. Set (a) of future completive alternants occurs when followed by person-marking suffixes or when not followed by further suffixes. Set (b) occurs under the remaining possible conditions.

Sentences for series 1 verb suffixes follow. yanurŋa yulaŋu Yanur cried; t^{y}it^{y}i yulara the child is crying; t^{y}arpara pit^{y}a having entered, come!; ŋankuluṇanta yuŋunt^{y}ara n^{y}aku I'll see you sg in the morning; n^{y}untulu mirka katiku n^{y}aŋkaṇa ŋalku if you bring the food, I will eat it (n^{y}aŋka is a consequential particle); t^{y}it^{y}i waŋkapayi it is a talking child; t^{y}it^{y}i waŋkaku the child will talk; waŋkama keep on talking!; palun^{y}alu n^{y}untun^{y}a miRan^{y}kan^{y}inma he will continue to care for you; kulila listen!

Series 2 of verb suffixes follow set (b) of future completive alternants (see above). The following are nominalizing:

-nt^{y}a completive: ŋankulu pit^{y}ant^{y}a I am the one who came; kuka ŋalkunt^{y}a it is meat that has been eaten; mirka pa·nt^{y}a it is food that has been cooked.

-kit^{y}a intentive, purposive: watilu karpilkit^{y}a the man intends to tie it up; wati n^{y}aralu kupuḷu mant^{y}inu t^{y}it^{y}i puŋkukit^{y}alu that man picked up a waddy to hit the child. The sequence V + present + nt^{y}a has the referent past continuative: min^{y}ma ŋa·lunku kata kultuRant^{y}a wana puḷkaŋka this woman was piercing her own head with a big digging stick.

The following series 2 verb suffixes are status quo:

-t^{y}aku desiderative: ŋankulu kapi t^{y}ikilt^{y}aku I would like to drink water.

-n^{y}aŋka subordination of completive verb (with non-identical actors in two clauses): n^{y}untulu pit^{y}an^{y}aŋka ŋankulu pukuḷariku when you have come, I will rejoice.

The suffix -lpi occurs in the sequence V + present + -lpi, and marks subordination in sentences having identical actor in each clause: ŋankulu n^{y}akulalpi kuḷkuḷkuṇu on seeing it, I shook with fear; wati n^{y}aran^{y}a pit^{y}alalpi pikariŋu on arrival that man fell ill.

The suffix -n^{y}aŋka following the sequence V-present marks subordination of a continuative verb in the first clause of sentences in which the actors in the two clauses are non-identical: watilu n^{y}arat^{y}a n^{y}akulan^{y}aŋka wati kut^{y}upalu ŋuṇṭi puŋu *while the man was looking there, another man hit him on the back of the neck.*

The negativizing or reversive suffix -munu ~ -ma·lpa ~ -ma·l- occurs in the following sequences:

(1) following -ntʸa *completive:* ŋa· pinʸariRantʸamunulatʸu nʸaŋu *we have never seen the like of this before.*

(2) following -tʸaku: nʸuntulu kapi mantʸiltʸakumunu *you could not get water.*

(3) following -kitʸa: watilu waŋka kulilkitʸamunu *the man did not want to hear the word.*

Negative commands are nominalizations, and can hence occur in sequence with *ergative:* yinkantʸama·lpa kanmarari *don't sing, be quiet!:* papa puŋkuntʸama·ltu kanʸinma *don't hit the dog, go on keeping it* (or *don't kill. . .*). The alternant -munu also occurs as a noun suffix, e.g. papa ŋanʸirimunu *it is a tame dog* (papa *dog,* ŋanʸiri *wild*); maḷu kutʸaramunu *there are a lot of kangaroos* (maḷu *kangaroo;* kutʸara *two*).

A non-divisive operator of *reduplication,* combinable with some nouns, has a descriptive or intensative referent: kaḷikaḷi *crooked* (kal̥i boomerang); tʸitʸi tʸinatʸina *toddler; it is a toddler* (tʸitʸi *child;* tʸina *foot*); yiramyirami *red* (yirami *blood*); walʸkuwalʸku *very bad* (walʸku *bad*).

The following are nondivisive status quo noun suffixes:

-kuṇu *male offspring of woman*

-tʸa *pertaining to:* mirkatʸa *edible* (mirka *food*); walatʸa *weary* (wala *calf*); watitʸa *human* (wati *man*).

-tʸara *possessed of:* wati kuritʸara *he is a married man* (wati *man,* kuri *spouse*); minʸma purkutʸara *she is a bereaved woman* (minʸma *woman,* purku *head wounded by self-inflicted hitting with stone*).

-ma·lpa privative: ŋankulu kuḷaṭama·lpa I am without a spear.

-t^{y}utu closed: wati kuRut^{y}utu he is a blind man (wati man, kuRu eye).

The suffix -t^{y}a also occurs in the sequence N + locative + -t^{y}a, e.g. kukakapiŋkat^{y}a it is water meat (i.e. fish); mirka yilkariŋkat^{y}a it is celestial food (yilkari day-sky).

Compounds of N + N = N are exemplified in t^{y}unikura sad, revengeful (t^{y}uni stomach, kura bad); kukaŋalt^{y}a greedy for meat (kuka meat, ŋalt^{y}a greedy).

Warburton Ranges relational noun suffixes are listed below. Those lacking zero alternants are divisive for nouns.

-lu ~ -tu ~ -ṭu ~ -t^{y}u ~ -0 transitive actor: watilu papa n^{y}aŋu the man saw a dog; maḷan^{y}t^{y}u puŋu younger brother hit him; yanurtu puŋu Yanur hit him; yali papa n^{y}aŋu we du saw the dog (yali we du).

-pa ~ -n^{y}a ~ -ŋa ~ -0 intransitive actor, direct goal: maḷan^{y}pa yulaŋu younger brother cried; maḷan^{y}pa puŋu he hit younger brother; yipaṭin^{y}a yulaŋu Yipaṭi cried; yanurŋa yulaŋu Yanur cried; wati yulaŋu the man cried.

-ya ~ -n^{y}a ~ -ŋa vocative: watiya hi, man!; yanurŋa hi, Yanur!

-ku ~ -mpa ~ -0 possessive, indirect goal: ŋankuku papa my dog; yanurku kuri Yanur's husband; ŋankukulimpa papa our du dog; kuḷaṭa yiRi it is the point of the spear (kuḷaṭa spear; yiRi point).

-ŋuRu elative: n^{y}untulu wan^{y}t^{y}aŋuRu pit^{y}aŋu where did you come from?; waRupuyula-ŋuRu from Warupuyu.

-la ~ -ta ~ -ṭa ~ -t^{y}a ~ -ŋka locative, instrumental: ka·ṇkala at Ka·ṇka (place name); t^{y}it^{y}i piṇi yuḷṭul^{y}t^{y}a ŋamu n^{y}inara kuwariṭu (child many Ooldea-at near are-staying right-now), there are a lot of children staying close to Ooldea right now; wati n^{y}inara ŋuraŋka the man is sitting in the camp;

wanaŋka *at, with a digging stick.*

-kutu ~ -ku ~ -tu *allative*: ŋurakutu ~ ŋuraku ~ ŋuratu *towards the camp*. The elative and allative suffixes are obligatorily preceded by *locative* when in sequence with proper nouns or pronouns: ka·ŋ̣ka-la-kutu *towards Ka·ŋ̣ka*.

-t^{y}anu *elative$_{2}$*, *from (source)*: wati ŋa·n^{y}a pilat^{y}anu pit^{y}aŋu *this man came from the spinifex country*; ŋa·n^{y}a kapit^{y}anu katuriŋu *this arose out of water*.

-t^{y}irat^{y}a *causal*: wati ŋa·n^{y}a kat^{y}at^{y}irat^{y}a yulara *this man is crying on account of (his) son*; watilu maliki kultuṇu kutat^{y}irat^{y}alu *the man speared a stranger on acount of (his) elder brother*.

Non-divisive verbalizing suffixes are listed below.

-t^{y}u- ~ -t^{y}iŋa- ~ -ṇṭa- *causative*: ŋarit^{y}unu *he made it lie* (ŋariŋu *it lay down*); waŋkat^{y}iŋaṇu *he made it talk* (waŋkaŋu *it talked*); pikaṇṭaṇu *it hurt him*.

-ma- ~ -pu- forms transitive verbs: pika-pu- *to fight*; pukuḷmanu *it made him happy*.

-ri- ~ -ari- ~ -ti- ~ -l^{y}ara- forms intransitive verbs; pikariŋu *he became ill*; pukuḷariŋu *he rejoiced*; kaṭatiŋu *it broke* (kaṭaṇṭanu *he broke it*); yaral^{y}araṇu *it became loose* (yaraṇu *he loosened it*); wiyariŋu *it disappeared* (wiyaṇu *he finished it*; wiya *negative particle*).

The last example above attests a point of overlap between particle and verb stem classes. Noun-verb stems include waŋka ~ waŋka- *language*, *to talk*; katu ~ katu- *above, to raise it*; and puḷka ~ puḷka- *big, to enlarge*.

The suffix -payi *habituative* is non-divisive and nominalizing. When in sequence with a verb stem, it is preceded by set (b) of *future completive* alternants: wati ŋat^{y}ilpayi *he is a beggar*; puŋkupayi *always hitting* (pu- *to hit*, *kill*); wati ŋan^{y}iripayi *the man is always wild* (ŋan^{y}iri (noun) *wild*).

The suffix -ṭu *emphatic* is non-divisive. Thus, wiyaṭu *definitely no* (wiya *no* is a particle); wiyaṭuṇa *I am definitely not*; note piṇiku waŋka *it is the speech of many* (piṇi *many* is a noun): piṇikuṭu yamat^{y}i *everybody's friend*.

The suffix -n^{y}u *quotative* is disjunctive, and closes the first word of the contour: pit^{y}an^{y}u *he says you have to come*; yinkáman^{y}u *keep on singing*, *they say*; malikin^{y}u piṇi pit^{y}aŋu *they say a lot of strangers have come*.

In Warburton Ranges dialect there is an option--relatively rare in Australian languages--between marking person by independent pronoun or demonstrative, and marking person by affix. There is no evidence in Douglas' grammar that both mechanisms can be productively used in cross-reference in the same sentence. There is also an option--again relatively rare in languages--between occurrence of the affixial person markers (*actor, goal* etc.) as conjunctive verb suffixes, and as disjunctive suffixes occurring in sequence with the first word of the contour, irrespective of whether that word be verb, noun, or particle, inflected or uninflected. The suffixial by-forms of the pronouns and demonstratives are arranged here paradigmatically:

Actor	Direct Goal	Possessive	
-ṇa	-ṇi	-t^{y}u	*I*
-li-t^{y}u	-li-n^{y}a ~ -li-n^{y}a-t^{y}u	-li-mpa-t^{y}u	*we du*
-la-t^{y}u	-la-n^{y}a ~ -la-n^{y}a-t^{y}u	-la-mpa-t^{y}u	*we pl*
-n	-nta	-nku	*you sg*
-pula-n	-pula-n^{y}a-nta	?	*you du*
-ya-n	-nta-ya	-ya-nku	*you pl*
(no overt marker)	-lu ~ -ø	?	*he*
-t^{y}ana-pula ~ -pula	-t^{y}ana-n^{y}a-pula-n^{y}a	?	*they du*
-t^{y}ana	-t^{y}ana-n^{y}a	-ya-nku	*they pl (outsiders)*
-ya	-t^{y}ana-n^{y}a	-ya-nku	*they pl (in-groupers)*

The -lu alternant of third person singular direct goal occurs in sequence only with the stems wat^{y}a- *to tell* and n^{y}a- *to see*.

The sequence -n^{y}a-t^{y}u marks *first singular reflexive;* -nku (see above) also marks *second and third singular reflexive*; -ya-nku *plural reflexive*.

Examples of the above series are kutipit^{y}ant^{y}ama·lpan *did you not go away?*; puŋuṇanta (or ŋankulu n^{y}untun^{y}a puŋu) *I hit you*; palun^{y}alu wat^{y}aṇulu // mapit^{y}a# *he said to him 'go away!'*; n^{y}aŋuyan *you pl saw it*; ṇintipuŋkulalan^{y}a *he is teaching us pl*; watilunta n^{y}aŋu *the man saw you*; n^{y}untun^{y}aṇa kulinu *it was you I heard*; malikilat^{y}u n^{y}aŋu *we pl saw the stranger*; maliki n^{y}aŋuṇa *I saw the stranger*; n^{y}untulun kuraṇu *you spoiled it*; ṇintilalin^{y}a ~ ṇintilalin^{y}at^{y}u *give it to us du!*; kukan ŋala *you eat the meat!* (kuka *meat*); mamat^{y}u *it is my father*; ŋuranku *it is your camp*; ŋankulun^{y}at^{y}u puŋkulant^{y}a *I was hitting myself*; min^{y}maluya kapi maṇmaran^{y}aŋka *the women were drawing water* (min^{y}ma *woman*); papalimpat^{y}u *it is our du dog* (papa *dog*).

In the Warburton Ranges dialect, word order is unusually rigid--as far as Australian languages permit rigidity. Douglas discusses the preferential order of noun attributes, but lists only one possible sequence in his examples of maximally expanded noun phrases--ŋankuku t^{y}it^{y}i pil^{y}irpa wal^{y}kumunu kut^{y}ara palan^{y}a ŋarira *my child baby good two that (are) lying down*, i.e. *those two good baby children of mine are lying down*; ŋankuku t^{y}it^{y}i minaḷi puḷka kut^{y}ara n^{y}araluya nani puŋu *those two big boy children of mine killed a rabbit* (minaḷi *boy*, puḷka *big*). All of Douglas' examples of transitive sentences show SOV order (subject-object-verb).

2.2. The external data for Yulbaridja, as well as its phoneme inventory, are listed at the beginning of this section. This dialect is numbered 474 on Greenway's map. The general statements there made on interphonemic specification in Western Desert dialects are amplified for Yulbaridja below.

Consonants other than /t n l r l^y/ occur initially; /t^y n ṇ n^y l ḷ l^y r/ are attested in word-final position. The syllable has canonical shapes CV and CVC. Consonant clusters occurring within a morpheme contain two members only and are limited to medial position: homorganic /mp nt ṇṭ n^{y}t^y ŋk/ and /lt ḷṭ l^{y}t^y/, and heterorganic clusters with one of /n ṇ n^y l ḷ l^y r/ as first member and /p t^y k m ŋ/ as second. Within the word but across morpheme boundaries, additional possibilities of clustering exist (especially in reduplications), as /pm rl/. Vowels occur medially and finally only. Stress is predictable and, as in most other Australian languages, occurs on the initial syllable.

Stem classes in Yulbaridja are verbs, nouns, and particles. There are also a few overlapping noun-verb stems, as ṭili (N) *firelight* ~ ṭili- (v) *to light it*.

Person is marked either by independent pronouns (for first and second persons) or demonstratives (for third person) occurring in cross-reference with disjunctive suffixes which close the first word of the contour, or by disjunctive suffixes alone. Pronouns and demonstratives are subclasses of nouns. The pronouns are listed below, and the demonstratives exemplified with nʸara *that one — distant*.

ŋayu	*I*
ŋayukutʸara	*we du*
ŋayuṭi	*we pl*
nʸuntu	*you sg*
nʸuntukutʸara	*you du*
nʸuntuṭi	*you pl*
nʸara	*he, distant*
nʸarakutʸara	*they du, distant*
nʸaraṭi	*they pl, distant*

These forms are optional, and mark *non-ergative actor* and *direct goal*. *Ergative* is marked by suffix -lu: ŋayulu, ŋayukutʸaralu; *possessive* is marked by suffix -kuRaŋu: ŋayukuRaŋu, ŋayukutʸarakuRaŋu; and *indirect goal* by suffix -ku: ŋayuku, ŋayukutʸaraku. All of the forms listed (other than possessives) occur in obligatory cross-reference with the corresponding suffixial by-forms when contour-initial. Thus, punkaṇuṇa ŋayu ~ ŋayuṇa punkaṇu ~ punkaṇuṇa *I fell*; waRunpula nʸaŋu nʸuntukutʸaralu ~ nʸuntukutʸaralunpula waRu nʸaŋu ~ nʸaŋunpula waRu nʸuntukutʸaralu ~ nʸaŋunpula waRu *you du saw the fire* (waRu *fire*; -npula *you du, actor*; nʸa- *to see it*; -ŋu *past*).

The distinction between *inclusive* and *exclusive* is not made in independent pronouns, but is made in the suffixial person markers: yapaṇkaŋanʸalitʸananʸaRa ŋayukutʸaralu (~ ŋayukutʸaralulitʸananʸaRa yapaṇkaŋanʸa) *we du incl will creep* up on them pl versus yapaṇkaŋanʸalitʸutʸananʸaRa ŋayukutʸaralu (~ ŋayukutʸaralulitʸutʸananʸaRa yapaṇkaŋanʸa) we du excl will creep up on them pl (-tʸu exclusivizer; -tʸana-nʸa-Ra on them pl; yapaṇ-ka- to creep up; -ŋanʸa future).

Verb stems occur in at least two grammatical subclasses--transitive and intransitive--and, independently of these, in at least eight morphophonemic subclasses. The latter are exemplified below in terms of alternations in several divisive series 1 suffixes.

Past	Present	Future$_1$	Imperative	Aspectual	
kuli-nu	kuli-nin	kuli-npa	kuli-la	kuli-lku- ~ kuli-l-	to hear
ŋa-laŋu	ŋa-naṇin	?	ŋa-la	ŋa-lku-	to eat it
ya-nu	ya-nanʸin	ya-nanʸa	ya-ra	ya-nku-	to go
yu-ŋu	yu-ŋayin	yu-ŋanʸa	yu-wa	yu-ŋku-	to give
ka-ŋu	ka-ŋanʸin	ka-ŋanʸa	ka-wa	ka-ŋku-	to carry it
nʸa-ŋu	nʸa-ŋanʸin ~ nʸa-ŋayin	nʸa-ŋanʸa	nʸa-wa	nʸa-ku-	to see it
piṭa-ŋu	piṭa-nʸin ~ piṭa-nʸi	piṭa-nʸa	piṭa	piṭa-	to run
yula-ŋu	yula-yin	yula-nʸa	yula	?	to cry

The forms with final consonant alternate to a longer shape containing an increment -pa- when further suffixes follow: kaŋanʸin he is carrying it versus kaŋanʸinpaṇa I am carrying it (-ṇa I). Other exemplification of the above suffixes follows. kuranʸu yara go ahead!; ŋa·ŋka tʸawala kaṭaḷ dig a hole here! (ŋa·-ŋka here; tʸawa- to dig; kaṭaḷ hole); nʸaralutʸu watʸaṇu he told me; kurpininpanʸinta he's washing himself; wakanpaṇanta I'll spear you; ŋuraŋkaṇa nʸinanʸa I'll stay in the camp.

An additional series 1 suffix is -nma future$_2$, attested in the following sequences: kalʸutʸa manmala *get water for me!* (kalʸu *water*; ma- *to get, fetch*); kalʸuṇaŋku manmanpa *I'll fetch water for you sg*.

The following is a divisive verb suffix of series 2: -n ~ -npa *continuative*: waRu kampaŋun *the fire was burning* (but waRu kampaŋu *the fire burnt*); yuŋunpaṇantaRa *I kept on giving it to you* (yuŋuṇantaRa *I gave it to you*); wayaṭikuRa nʸawanpa ŋampurtʸu *keep a good lookout for turtles!* (wayaṭi *turtle*; -ku *indirect goal*; -Ra *for it*; nʸa- *to see*; -wa *imperative*; ŋampur *care*; -tʸu *ergative*).

Other suffixes of series 2 occur in obligatory sequence with the aspectual morpheme (series 1):

-lku-Ra ≈ *optative*: kalʸuṇa tʸikilkuRa *let me drink some water*; yankuRaṇa *let me go*; ṭurukulaRa yankuRa *let's (pl incl) go after birds* (ṭuru *bird*; the -Ra in the first word is *for it*, a different morpheme from the -Ra in the second).

-lku-ṭa ≈ *negative optative*, *avolitional*: warkilkuṭalinʸa yiṇalu *let father not chastise us du incl* (warki- *to chastise*; yiṇa *father*); wiyan waŋkaṭa maya *don't talk fast!* (wiya *negative particle*; -n *you sg*; waŋka- *to talk*; -∅ *aspectual*; maya *fast*); wiyatʸun yilpaṭa *don't wait for me!* (-tʸu *for me*; yilpa- *to wait*); puŋkuṭanta *don't let it kill you!*

-lku-maRa ≈ *past irrealis*: mayakaṭiṇa yankumaRa *I should have gone to the house, I was going to go to the house* (maya *house*; -kaṭi *allative*; ya- *to go*); nʸukuṇitʸan puŋkumaRa *some time ago you were going to hit me* (nʸukuṇi *some time ago*; -tʸa *me*; -n *you*; pu- *to hit, kill*).

Verb suffixes of series 3 are:

-ṇi *towards speaker*: ŋanakuḷuntan yanuṇi *with what did you come here?* (ŋana *what?* -kuḷu *possessed of*; -nta *interrogative*; -n *you*; ya- *to go*); yananʸaṇin yuŋunpa warkamkaṭi *you should come tomorrow to work* (yuŋunpa *tomorrow*).

-kaRu *subordinative*: kuṇuriŋuya yinkaṇukaRu *they have stopped singing*.

-t^y *emphatic* (only in sequence with *imperative*): n^{y}inat^y *sit down*!; t^{y}ikilat^y *drink it*!

-munu: the sequence -lku-Ra-munu ≈ has the referent *not in the habit of (verbing)*, e.g. pat^{y}alkuRamunu *non-biting*--*as of dog* (pat^{y}a- *to bite*).

The following non-divisive suffixes include series 3 in verb suffixation among possible sequences in which they occur:

-ŋul^{y}u *conditional* (following the sequence -lku- maRa ≈): n^{y}ukuṇiṇa waRu n^{y}akumaRaŋul^{y}u *I would have seen the fire some time ago*.

-ku *indirect goal* (the sequence -lku-Ra-ku ≈ has the referent *purposive*): wiyaṇa ŋayulu n^{y}akuRaku waRu *I mustn't see a fire*; pal^{y}a t^{y}i·ŋul^{y}u ŋalkuRaku ↑ *is that good to eat*?; wiya ṭililkuRaku *no fires are to be lit*.

-payi *habituative*: pat^{y}alpayi *savage*, *in the habit of biting*--*as dog* (pat^{y}a- *to bite*).

-paṇi *negative nonfuture*: wiyaṇanta kulilpaṇi *I didn't hear you*, *I didn't understand you*; wiyarakaṇat^{y}anan^{y}a n^{y}akupaṇi *I didn't see them*; wiyarakalat^{y}u mankupaṇi yuṭaŋa *we pl excl didn't catch any fish* (ma- *to take*, *catch*; yuṭa *fish*).

-pinti *instrument*: kawaṇi t^{y}i· karpilpinti *bring me that string*! (karpi- *to tie it*).

Each of the above five suffixes occurs in sequence with at least some noun subclasses as well, and is further discussed in this context below. The last three suffixes listed are nominalizing.

Noun reduplication occurs in Yulbaridja, but is of limited productiveness. Examples are yilkuyilku *red* (yilku *blood*); yunturyuntur *it's cloudy* (yuntur *cloud*). As in most Australian languages, there are numerous reduplicated morphs in Yulbaridja which lack nonreduplicated analogs, e.g. markamarka *mirage*, kawaŋkawaṇ *crazy*, and t^{y}akat^{y}aka *tired*, *lazy* are attested, but *marka, *kawaṇ, and *t^{y}aka are not. In other cases the referent of reduplication is obscure to the point where two different forms--one being an apparent reduplication of the other--would best be regarded as sharing no morphemic content as for example, karu *river*, *creek*: karukaru *path*.

The following status quo noun suffixes are nondivisive:

-t^{y}ara *temporal*: yuŋunt^{y}arala yanan^{y}a *we pl incl will go before sunrise* (yuŋunt^{y}ara *before sunrise*; yuŋun ~ yuŋunpa morning, tomorrow).

-maṭa *moderative*: kintimaṭanta↑ *is it rather far*? -lmaḷu *numerative*: wan^{y}t^{y}almaḷuṭaŋkuya t^{y}it^{y}iṭi *just how many children do you have*? (wan^{y}t^{y}a *where?*; -ṭa *emphatic*; -ŋku *your sg*; -ya *they pl*; t^{y}it^{y}i *child*; -ṭi *plural*).

-l^{y}uRu *qualitative*: wan^{y}t^{y}al^{y}uRuwaRapa yuṭaŋa t^{y}i·ŋa *what kind of fish is that*?

-payi *habituative*: ṭiḷpayi *always greedy* (ṭiḷ *greedy*); kulirpayi *always sleepy*.

-paṇi *privative*: kal^{y}upaṇiṇa *I have no water* (kal^{y}u *water*); wiya yuŋkuRaku // warkampaṇit^{y}an# *(I) won't give (you) anything because (you) haven't worked*.

-kulu ~ -t^{y}aṭu *possessed of*: kal^{y}ukuḷuṇa *I have water*; puḷan^{y}kaṭikuḷuṇa kumpin^{y}ukuḷu yaltarin^{y}in *having (only) one blanket, I'm cold* (puḷan^{y}kaṭi *blanket*; kumpin^{y}u *one*; yalta-ri- *to get cold, be cold*); ṭuṭut^{y}aṭu *desert walnut tree* (ṭuṭu *desert walnut*).

-pinti *instrument*: mit^{y}uRumpinti *gauge*--*as thermometer, etc*. (mit^{y}uRum < Pidgin English *measure 'im*).

The status quo noun suffix -kuRaŋu *possessive* is divisive: waRun^{y}ura n^{y}aŋunpa ŋayuṭikuRaŋu↑ *were you pl watching our pl (excl) fire*? (waRu *fire*; n^{y}a- *to see*; ŋayu *I*; -ṭi *plural*); wan^{y}t^{y}aŋkantaya puntuṭi ŋayukuRaŋuṭi *where are my people*? (puntu *person;* ŋayukuRaŋuṭi *those belonging to me*); ṭilʸpulu ŋayukuRaŋulu kaŋu mutuka *my mother drove the motorcar* (ṭilʸpu *mother*; ka- *to carry it*, *drive--as car*).

The following are nondivisive verbalizing noun suffixes (the first two also appear in sequence with the particle wiya *negative*):
-ri- *inceptive*: mimiriŋu *he got sick* (mimi *sick*);
wiyariŋu *it came to an end*;
-ma- *causative*: walamananʸaṇa *I'll make him run* (wala *speed*, *running*); wiyamananʸa *he'll finish it*.

-lʸa- ~ -ka- *intransitive*: mutuka tʸiRalʸaṇu *the car skidded* (tʸiRa *grease*); yikarikaŋuṇa *I laughed* (yikari-ka- *to laugh*). The latter alternant is a biform of the stem ka- *to carry it*.

The following morphemes have an independent existence as verb stems, but can also occur as second member in compounds with nouns:

-ŋaRa- *stative*: munaṭaṇa wilʸtʸiwilʸtʸiŋaRanʸin *I have earache* (munaṭa *ear;* wilʸtʸiwilʸtʸi *pain*); tʸakatʸakaŋaRanʸinpan↑ *are you tired*? When non compound-included, ŋaRa- has the referent *to stand*, e.g. ŋaRaŋunpaṇa *I was standing*.

-pu- *transitive*: wiripuwa *throw it!* Outside of compounds, pu- has the referent *to hit, kill*, e.g. puŋulinʸa *he hit us du incl*.

-ya- *motive*: puntuṭiya kaḷki yakayananʸin ŋuraŋka *there are people skulking near the camp*. Outside of compounds, ya- has the referent *to go*, e.g. yaraṇi ŋayukaṭi *come to me*!

-nʸa- *mentative*: tʸalanʸaŋuṇa *I forgot it*. Outside of compounds, nʸa- has the referent *to see it,* e.g. nʸaŋuṇa *I saw it*.

The following are number-marking noun suffixes:

-kutʸara *dual*: tʸitʸikutʸara *two children*. This morpheme also occurs independently as kutʸara *two*, a noun.

-ṭi *plural*: t^{y}it^{y}iṭi *children*; ŋayut̥i *we pl*.

These two suffixes can either precede or follow the possessive suffix -kuRaŋu (see above). This interchangeability has referent-changing value. Number markers precede relational suffixes, listed below.

The following relational suffixes are divisive for nouns:

-lu ~ -t^{y}u *ergative*: puwa kampuRa kuṇṭikul̥ulu *hit the dingo with a waddy!* (pu- *to hit*; kampuRa *dingo*; kuṇṭi *waddy*); ŋanaluntat^{y}a kuka kaŋu *who took my meat?* (ŋana *who?*; -nta *interrogative*; -t^{y}a *my*; kuka *meat*; ka- *to carry, take*); yunturt^{y}ulu t^{y}utuṇu wiRilt^{y}a *cloud has obscured the star(s)* (yuntur *cloud*; -t^{y}u *ergative*; -lu *at it*; t^{y}utu- *to obscure*; wiRil *star*; -t^{y}a *locative*).

-ku *indirect goal, purposive*; ŋanakuntaRan ŋaRan^{y}in *what do you want?* (ŋana *what*; -ku *for*; -nta *interrogative*; -Ra *for it*; -n *you sg actor*; ŋaRa- *to stand, to be*); ṭurukulaRa yankuRa // pawulkuRalaRa wuṇaku# *let's pl incl go (hunting) for birds and let's cook them for the journey*.

-t^{y}anu ~ -t^{y}a *elative, source*: wan^{y}t^{y}aṭinta kuwarit^{y}anut̥i *where are the strangers?* (kuwari *today, now*); ŋanat^{y}anuṭaRan ṇinti *just how do you know?* (ŋana *what?*; -t^{y}anu *from*; -ṭa *emphatic*; -Ra *about it, for it*; -n *you sg actor*; ṇinti *clever, knowing*); ŋanat^{y}antan n^{y}untu kulirpayi *why are you sleepy?*

-ŋka ~ -t^{y}a ~ -la ~ -wana *locative*: ṭut^{y}uṭiŋkat^{y}anan^{y}aRaya wat^{y}ala // t^{y}aṭakaṭiya yanan^{y}a# *you pl tell the women to go bush!* (ṭut^{y}u *woman*; wat^{y}a- *to tell*; t^{y}aṭa *thicket, scrub*); puḷiŋkaṇa ṭatinpa *I'll climb up on the stone*; puŋan^{y}alit^{y}untapula ŋapart^{y}a *we du excl will hit you du in revenge*; n^{y}aŋulanta ṭil^{y}pu pakanpa ŋayukuRaŋu *when will my mother arrive?* (n^{y}aŋu-la *when?*; ṭil^{y}pu *mother*; paka- *to arrive*); ŋuRuruwana t^{y}ura *put it in the middle!* (ŋuRuru *middle*).

-kaṭi ~ -kuṭi ~ -kaṭa ~ -wara *allative*: mayakaṭiṇa yananʸin *I'm going to the house*; watʸalatʸanampa // yananʸaṇiya kaninʸkuṭikura# *tell them pl to come down (to the house)*; kayilikaṭa ŋaruntu pakani *a north wind is springing up* (kayili *north*; ŋaruntu *wind*; kayili-kaṭa *north-side*); wanʸtʸawarakuntan ~ wanʸtʸawarakuRapan *where are you (going)*?

The following noun suffixes are of limited productiveness:

-ŋa ~ -nʸa *animate declarative intransitive actor*, *animate declarative direct goal*: kulirpa ŋarinʸin kaŋkuRuŋa *the kangaroo is sleeping* (kulir ~ kulirpa *sleep, noun*; ŋari- *to lie*); palunʸa *that one, near*.

-kayi *vocative*: ṭilʸpukayi *mother*!

The suffixes listed below occur in sequence with subclasses of more than one stem class, and can be followed only by disjunctive suffixes, i.e. person markers.

-ṭa *emphatic*: nʸuntuṭa *you're the one*! (nʸuntu *you sg*); wanʸtʸatʸanuṭa *just where from*?

-kura *intensative*: yananʸala pinakura *we pl incl will go very far* (ya- *to go*; pina *far*).

-mara *causal* (?): pawi kalʸuŋkamara *come away from the water*!

-raka: ŋuḷurinʸin mimiraka palunʸa *he's frightened because he's sick* (ŋuḷu-ri- *to be frightened*; mimi *sick*; palunʸa *that one, near*); ŋa·ŋaraka ŋura puṭa *this camp is no good*; tʸi·ŋaraka ṭutʸuŋa ṇinti // yilta minʸiri# *that girl is really clever.*

The suffix -ŋulʸu, occurs in sequence with the demonstratives ŋa· *this* and tʸi· *that, near* with a deictic referent: ŋa·ŋulʸuya wakaṇu kuḷaṭalu *they speared this one with spears*; ŋa·ŋulʸu yawaṭa↑ *is this the horse*?; waRu tʸi·ŋulʸu puṭulʸpa↑ *is that firewood heavy*? (waRu *fire, firewood*); ŋanalunta kaŋu tʸi·ŋulʸu mutuka *who brought that motorcar*?

The suffix -ŋuRu *consequential* (with verbs), *elative*$_2$ (with nouns) is exemplified as follows: punkaṇu ṭatiŋuRu // mapirpan^{y}inta wan^{y}imu# *he fell while climbing and hurt his hand* (punka- *to fall*; ṭati- *to climb*; mapir ~ mapirpa *hand*; -n^{y}inta *reflexive)*; yiwiṭiŋuRuṇa punkaṇu *I fell from the top*; ŋanaŋuRuntayapula puŋan^{y}a *for what reason are they pl going to hit you du*? (ŋana-ŋuRu *as a consequence of what*? -nta-....-pula *you du, goal*; -ya *they pl*; pu- *to hit, kill*).

The suffix -n^{y}u appears to have the referent *dubitative*: mawura-n^{y}u *perhaps*.

The morphs -nta, -waRapa, and -Rapa are optionally in sequence with the interrogatives wan^{y}t^{y}a *where*? and ŋana *who*? They have the redundant referent *interrogative*: wan^{y}t^{y}anta t^{y}atil *where is the saddle*? wan^{y}t^{y}at^{y}anuwaRapan waRiŋkaŋu *where have you come from*?

The Yulbaridja person-marking suffixes are closing, and occur in sequence with the first word of the contour. There are four paradigms: *actor*, *direct goal*, *indirect goal*/*benefactive*, and *locative*. These are charted below on a category-based model.

Actor	Direct Goal	Indirect Goal, Benefactive	Locative	
-ṇa	-t^{y}a	-t^{y}u	-t^{y}a-Ra	*I*
-li	-li-n^{y}a	-li-mpa	-li-n^{y}a-Ra	*we du incl*
-li-t^{y}u	-li-n^{y}a-t^{y}u	-li-mpa-t^{y}u	-li-n^{y}a-t^{y}u-Ra	*we du excl*
-la	-la-n^{y}a	-la-mpa	-la-n^{y}a-Ra	*we pl incl*
-la-t^{y}u	-la-n^{y}a-t^{y}u	-la-mpa-t^{y}u	-la-n^{y}a-t^{y}u-Ra	*we pl excl*
-n	-nta	-ŋku	-nta-Ra	*you sg*
-n-pula	-nta-pula	-ŋku-pula	-nta-Ra-pula	*you du*
-n^{y}ura	-n^{y}ura-n^{y}a	-n^{y}ura-mpa	-n^{y}ura-n^{y}a-Ra	*you pl*
(unmarked)	(unmarked)	-Ra	-lu ~ -li	*he, she, it*
-pula	-pula-n^{y}a	-pula-mpa	-pula-n^{y}a-Ra	*they du*
-ya	-t^{y}ana-n^{y}a	-t^{y}ana-mpa	-t^{y}ana-n^{y}a-Ra	*they pl*
—	-n^{y}i-nta	-n^{y}i-ŋku	-n^{y}i-nta-Ra	*reflexive/ reciprocal*

When members of different paradigms occur in sequence, first person categories precede second person, most of which precede third person. Morphemes constituting the above paradigms occur in fifteen relative order series, but not more than five of these can be occupied in any one sequence. The members of each relative order are as follows (for glosses, see above): Order 1: -ṇa. Order 2: -li, -la. Orders 3,9, 14: -n^{y}a, -mpa. Order 4: -t^{y}a, -t^{y}u. Order 5: -n^{y}i. Order 6: -nta, -ŋku. Order 7: -n. Order 8: -t^{y}ana. Order 10: -lu ~ -li. Orders 11, 15: -Ra. Order 12: -n, -n^{y}ura, -ya. Order 13: -pula.

Attestation of the preceding paragraph follows. ṭiyiṇalimpaluRa kut^{y}anpa *I'll brew tea for both of us* (Orders 1-2-3-10-11); puŋulin^{y}at^{y}un *you hit us du excl* (Orders 2-3-4-7); *n^{y}aŋulat^{y}un^{y}inta *we pl excl saw each other* (not attested, but highly expectable) (Orders 2-4-5-6); pin^{y}t^{y}iRin^{y}iŋkun kaŋan^{y}a↑ *are you going to bring your iron spear?* (Orders

5-6-7); puŋunt^{y}anan^{y}a *you hit them pl* (Orders 7-8-9); waRulat^{y}anampaluRa wiRikaŋan^{y}a kaŋkuRuku *we pl incl will spread fire across-wind for kangaroos* (Orders 2-8-9-10-11); yaRumakuRaya ŋurinin *they pl are searching for Racehorse Goanna(s)* (Orders 11-12); puŋan^{y}antayapula *they pl will hit you du* (Orders 6-12-13); ḷirapiṭankut^{y}araŋkaṇapulan^{y}aRa patat^{y}aṇu *I forgot the two red-tailed black cockatoos* (Orders 1-13-14-15).

The words in a Yulbaridja utterance are to a large degree permutable without concomitant change in message. There is not even a clearly definable correlation between a given word order and the emphasizing of a word involving a particular stem class. In transitive sentences, the statistically preferred arrangement is SOV. The only morphemes occupying a fixed position within the sentence are the suffixial person markers. Exemplification of the permutability of other morphemes was given under the discussion of pronouns and demonstratives, at the beginning of this section.

In Yulbaridja and in languages to its west, north, and east--though not in Warburton Ranges dialect or in Aranda--suffixial concord links a noun to its modifiers, which do not necessarily occur in continuous sequence. Yulbaridja examples are: wiya ŋayuluku // yiṇalu ŋayukuRaŋulu t^{y}inkaṇu# *not I, but my father made it* (yiṇa *father*; ŋayukuRaŋu *my*); ŋanantalun wat^{y}aṇu t^{y}i·ŋka puntuŋka *what did you tell that person?*; kuwarilan^{y}aya wakanpa wamumpu puntuṭilu warmalaṭilu *the Warmala mob are going to spear us pl incl now* (kuwari *now, today*; waka- *to spear*; puntu *person*).

APPENDIX TO XXIX

by

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The Paman Group of the Pama-Nyungan Phylic Family

Proto Paman is reconstructed on the basis of a comparison of some 30 linguistic corpora, obtained by Hale in 1960, from various areas in Cape York Peninsula. The term Paman is derived from the stem *pama person and is applied as a tentative label for the family to which most, if not all Peninsular languages belong. The precise subclassification of Paman languages is only partially understood at present. It is known, however, that Northern Paman forms an unambiguous subgroup identifiable not only on the basis of shared innovations in phonological change but also on the basis of shared innovations in lexicon.

The Northern Paman languages are collectively termed Wik Way (/wik/ language + / way/ bad) by the Wik speaking peoples south of them. The Watson River is the topographic correlate of the collection of isoglosses separating Northern Paman from its Wik neighbors. The Northern Paman languages extend from the northern side of the Watson to the tip of the Peninsula. They share more cognate vocabulary among themselves than to the south of the Watson and they share at least the most conspicuous of the phonological innovations which so clearly distinguish them from the Wik languages south of the Watson.

Thirteen samples representing most if not all the major subgroups of Northern Paman were obtained in 1960 from informants now living at Weipa and Aurukun Missions. These are listed below according to the subgrouping which emerged on the basis of a consideration of shared developments in phonological change and, partly, on the basis of shared lexicon.

Uraði

Mpalit^{y}an̯, Luṯ̯iɣ

Yinwum

Linŋiṯ̯iɣ, Alŋiṯ̯

Ṯ̯yan̯ŋayṯ̯-Mamŋayṯ̯-Nt^{r}waʔŋayṯ̯ (collectively termed Awŋṯ̯im), Nt^{r}aʔŋit

Ŋkoṯ̯

Aritinŋiṯ̯iɣ

Mbiywom

Uraði

The self-designation, /uraði/, conforms to a common pattern of language naming in northern Cape York Peninsula, being formed from the demonstrative /ura/ this. The speech community so labelled is similar to the one which Ray called Yaraikana (Ray, 1907) and shares some 83 percent of basic vocabulary with it. It is also similar to Capell's Bandji (Capell, 1956) and somewhat less so to Jardine's Gudang (in Curr, 1886), also called Dyaraga (McConnel, 1939) and Kekoseno (Sharp, 1939). Other terms which appear in the ethnographic literature for the area are Ngamiti, Wɔ:tati, Yumakundyi, Mu:tyati (McConnel, 1939, 1950); these, together with Uraði, are probably dialects of a single language spoken from the tip of Cape York Peninsula south to the Dalhunty R. on the west and Cape Grenville on the east. The informant whose speech is represented here stated that he learned Uraði from his father who was from McDonnell, on the Skardon River.

Mpalit^{y}an̯ and Lut̯iγ

These two closely related dialects were spoken in the middle and upper Ducie River area. Judging from a comparison of our data with the kinship terms collected by McConnel (1950), our Mpalit^{y}an̯ appears to correspond to her Lɔ:tig, located north of the Ducie, and her Tepiti, south of the Ducie, corresponds to our Lut̯iγ. At all events, the two forms of speech are closely similar. The term Lut̯iγ is formed in the familiar way (cp. / lu/ this), while the term Mpalit^{y}an̯, not located on any published tribal map, conforms to a different self-designation pattern not uncommon in the area -- cp. Itinadyana, Mbaʼtyana, Ulwauwutyana (McConnel, 1939).

Yinwum

This term (cp. / yin/ this) is easily identifiable in the ethnographic literature (McConnel, 1939). The language so designated was spoken south of Moreton on the Batavia River and west to Cox Creek.

Linŋit̯iγ and Alŋit̯

Linŋit̯iγ (cp. / lin/ this) was spoken southwest of the Embley River and west of the Hey in the area called Winduwinda (Roth, 1910). This location has since been questioned, as is mentioned below in the preface to a grammatical sketch of Linngithig (Linŋiṱiɣ).

Awŋṱim and Nt^{r}aʔŋiṱ

The three virtually identical dialects subsumed under the term Awntim are clustered about the embouchure shared by the Embley and Mission Rivers. Mamŋayṱ is on Urquhart Point, while Ṱyaŋŋayṱ and Nt^{r}waʔŋayṱ (cp. /nt^{r}waʔ/ *this*) are on the lower Mission River. The term Ṱyaŋŋayṱ (from /ṱyaŋ/ *spear-thrower*) appears as te-ana-nadi in Roth (1910), and the other two terms are easily identified as McConnel's Mamangiti and Ndruʔangit (McConnel, 1939). The dialects are close to Wimaranga and Tainikwiti (McConnel, 1939) and to the Nggerikudi, alias Yupŋayṱ, described by Hey who rightly regarded all of the dialects spoken along the 'coastline extending from Cullen Pt. to the northern side of Duyfken Point ...' as belonging to the same language (Hey, 1903). The term Awŋṱim (from /awŋ/ *I*) is presumably McConnel's Angutimi.

Although it is separated from Awntim by Linŋiṱiɣ and Aritinŋiṱiɣ, Nt^{r}aʔŋiṱ (cp. /nt^{r}aʔ/ *this*) is more closely related to Awŋṱim than to these intervening forms of speech. It was spoken around False Pera Head and the Norman River (cp. McConnel's Ndraʔangit, and Sharp's Andaʔaneti).

Ŋkoṱ

The language known by this name (cp. /ŋko/ *this*) was spoken between the Embley and Hey Rivers south of their junction. The original site of Weipa Mission is said to have been in Ŋkoṱ country. Informants state that Ŋkoṱ and the presumably extinct T^{r}ot^{y} are closely related dialects. Both terms are identifiable in McConnel's work as, respectively, Nggɔt and Tɔ:tj (McConnel, 1939).

Aritinŋit̯iɣ

Aritinŋit̯iɣ is the term applied by the Linŋit̯iɣ to the language originally spoken around the head of the Hey River. The term is derived from a form of the Aritinŋit̯iɣ verb / ari-/ to go. It is the Aritingiti of McConnel, the Aditinngeti of Sharp (McConnel, 1939; Sharp, 1939), and the Aratiniti of Capell (1956). The informants for this language used either this Linŋit̯iɣ term or the Nt^{r}waˀŋayt̯ designation / aritinŋayt̯/ .

Mbiywom

Mbiywom (cp. / mbiy/ camp) was spoken on the middle and upper Watson River and, more recently, on Myall Creek. York Downs and Merluna cattle stations are regarded by informants as being in Mbiywom country. The term is easily identified in the published literature (Mbeiwum, McConnel, 1939; Kok Mbewan, Sharp, 1939).

The inventory of Proto Pamam consonants and vowels now follows.

	bilabial	apical	laminal	velar
stops	*p	*t	*t^{y}	*k
nasals	*m	*n	*n^{y}	*ŋ
lateral		*l		
flap		*r		
glides	*w	*R	*y	

	front	central	back
high	*i		*u
low		*a	

Vowels may combine with the series generating component of length; accordingly, in addition to the short vowels above, there are three corresponding long vowels: *i· , *u· , *a· .

The comparative data indicate that all stems began in consonants and most stems ended in vowels. Most reconstructable stems are disyllabic, and long vowels occur in the initial syllable only. Clusters in reconstructions are medial only and consist of a resonant (nasal, lateral, flap, or glide) plus a stop (e.g. *mp, *nt, *lp, etc.). Of these, clusters of nasal plus stop are by far the most common. The seldom attested final consonants in reconstructions are resonants only, in particular *n, *l, *r, *R, *y. In initial position, all consonants except *l and *r are attested.

Reconstruction in Cape York Peninsula reveals a phonology which is extremely familiar in Australia, although the modern Northern Paman languages look decidedly un-Australian because of phonological developments peculiar to them.

Most conspicuous among the many developments which characterize Northern Paman reflection of Proto Paman is the reduction of Initial syllables ($*CV_1$) by loss of initial consonants ($*C_1$) and loss or other reduction of immediately following vowels ($*V_1$). Associated with initial reduction, and at least partially responsible for it is a shift of primary stress (a strictly phonetic feature) from the initial to the second syllable ($*CV_2$) in

Paman stems.

In all Northern Paman languages, except Uraði and its sister dialects, $*C_1$ was lost invariably. Even in Uraði the prevailing tendency has been toward initial loss, although $*C_1$ is sometimes positively reflected in that language. Short $*V_1$ was lost in some languages, retained in others, and metathesized in still others. Long $*V{\cdot}_1$ was shortened in all.

There was, then, a general merger of phonemic distinctions in initial position. However, these distinctions, although lost themselves, often left residual effects in segments which followed them and which survived in the modern languages, thereby giving rise to phonemic distinctions which were absent in the parent language. One of the ways in which phonemic split may occur -- the one which is particularly germane to Northern Paman phonology -- relates to the fact that any phonological segment, being characterized by a particular position and manner of articulation, has an influence on the phonetic actualization of other segments in its immediate environment. If a conditioning element is removed, the effect it had on adjacent segments may remain. Where different conditioning elements, each having its own particular effect, are lost from the same phonological environment, their separate effects may survive in the adjacent phones so that the latter, which were formerly allophones of a single phoneme, later stand in contrast. Phonemic split of this kind is common in Northern Paman, and the conditions under which it occurs are often statable in terms of $*C_1$ or $*V_1$. In Yinwum, for example, medial stops (*S) were nasalized after $*CV_1$ in which $*C_1$ was a nasal. After loss of the initial, this prenasalization survived, and, in modern Yinwum, prenasalized stops contrast with plain stops which also reflect medial *S but do so only where the preceding syllable began in a non-nasal. Thus,

*n^{y}ipul	>	^{n}pyul	*you non-sg,*
*n^{y}at^{y}i-	>	^{n}t^{y}i-	*to see,*
*ŋi· t^{y}a-	>	i^{n}t^{y}a-	*to put on, apply,*
*mukuR	>	^{n}kur	*mother's older brother;* but
*yapu-t^{y}u	>	pyu-y	*younger brother,*
*ku· t^{y}i-ma	>	ut^{y}i-m	*two,*
*pakay	>	kaR	*down.*

It is clear from this example that the technical exposition of Northern Paman historical phonology must allow for relative ordering of events.

Seven major phonological developments, each attested in more than one Northern Paman language, are listed and exemplified below.

Lenition of *C$_{2}$

In many Northern Paman languages, long *V·$_{1}$ had the effect of leniting stops (*S) and clusters of nasal plus stop (*NS) which immediately followed them. The lenited reflexes of *S and *NS are normally voiced fricatives. Thus, in the leniting environment, */ p mp/ > / β/ , */ t^{y} n^{y}t^{y}/ > /ɤ/ , and */ k ŋk/ > / ɣ/ , as in Linŋit̯iɣ:

*pi· pa	>	iβa-	*father's younger brother,*
*Ni·mpi	>	iβi	*ashes,*
*wa· t^{y}a	>	aɤa	*crow,*

*mu·n^{y}t^{y}i- > oδ̂i- to swim,
*Cu·ŋku > oγo- long, far; and in Uraδ̂i:
*pi·pa > iβa- father,
*wa·t^{y}a > waδ̂a crow,
*Ca·n^{y}t^{y}a- > aδ̂a- to hurt, pain,
*pi·ku > wiγu rib,
*pa·ŋkal > aγaw shoulder.

Reduction of *NS

This development is at least as wide spread as lenition. Medial clusters of nasal plus stop lost the nasal segment after *CV$_1$ in which *C$_1$ was a nasal. That is, in sequences of the type *NVNSV, both nasals were lost in the process of initial reduction. Linŋiṯ̯iγ examples follow:

*ŋampul > puy we pl incl,
*ŋantu-na > t^{r}o-n where,
*ŋuŋku > ko there; but, where *C$_1$ was non-nasal:

*kumpu > mpu urine,
*wuntu > nt^{r}o- to seek,
*puŋku > ŋko knee.

In Yinwum and in Mpalit^{y}aŋ̯ *NS lost the nasal segment itself, but the stop remained as prenasalized:

*n^{y}u·ŋka- > i^{n}kwe-, u^{n}ka- to smell.

Vowel umlaut

Vowel umlaut is not widespread but does occur in more than one language. In Yinwum, initial laminal consonants (*t^y, *n^y, *y) had the effect of fronting central or back vowels which followed in the same stem. Thus, in *CV$_2$, *a was fronted to / i/ if *CV$_1$ was short and began in a laminal:

*t^{y}ampa-	>	mpi-	to give,
*t^{y}alan	>	lin	mouth,
*yana-	>	ni-	to go,
*yinta-	>	nti-	to spear.

The vowel in *CV$_1$ also exerted an umlauting effect on *V$_2$ in some languages. In Yinwum, *i in *CV$_2$ was lowered to / e/ if V$_1$ was *a and if the intervening *C$_2$ was non-laminal:

*kami	>	me-	mother's mother,
*kampiy	>	mpeR	up,
*ŋali	>	le-	we du incl,
*waRi-	>	te-	to dig; but with laminal *C$_2$:
*ŋat^{y}i	>	^{n}t^{y}i-	mother's father,
*ŋan^{y}i	>	n^{y}i	me,
*mayi	>	ayi	vegetable food.

Loss of *C$_1$

As mentioned above, loss of *C$_1$ is general in Northern Paman. Exemplification here is from Linŋiṯiγ in which short *V$_1$ was also normally lost in initial reduction:

*pama	>	ma	*person*,
*puŋku	>	ŋko	*knee*,
*t^{y}alan	>	lan	*tongue*,
*t^{y}aŋkaR-	>	ŋkaʔ-	*laughter*,
*kali-	>	li-	*to go*,
*kaŋka(r)	>	ŋka-ð̌	*north*,
*min^{y}a	>	n^{y}a	*animal*,
*mulir	>	lið̌	*tooth*,
*n^{y}at^{y}i-	>	t^{y}i-	*to see*,
*n^{y}ipi-ma	>	pi-m	*one*,
*ŋat^{y}u-	>	t̪o-	*1st sg oblique*,
*ŋana	>	na-	*we excl*,
*wanta-	>	nt^{r}a-	*to leave it*,
*wuntu-	>	nt^{r}o-	*to seek*,
*yinta-	>	nt^{r}æ-	*to spear (with multi-prong)*.

Metathesis of *V$_1$

With loss of *C$_1$, a short vowel immediately following it metathesized with *C$_2$ in many Northern Paman languages. Metathesis of *i and *u, and especially of the latter, is quite widespread; and metathesis of *a occurs in several languages. High vowels reduced to the corresponding glides, /y/ and /w/, when they metathesized and also when following /a/ which metathesized from an initial syllable. The following examples are from Awŋt̪im:

*min^{y}a	>	n̯ya	*animal*,
*n^{y}iŋku	>	ŋkyu-	*2nd sg oblique*,
*t^{y}uma	>	mwa	*fire*,
*mulir	>	lwiɣ̆	*tooth*,
*ŋali	>	lay-	*we du incl*,
*ŋat^{y}u-	>	t̯aw-	*1st sg oblique*.

A common restriction on metathesis is that *V_1 and *V_2 should be non-identical; but in Aritinŋit̯iɣ, and apparently also in Mbiywom, *u metathesized from *CV_1 where V_2 was also *u:

*puŋku	>	ŋkwu	*knee*,
*yuku	>	kwu	*tree*.

Loss of short *V_1

In Uraδi, short *V_1 was neither lost nor metathesized. In Mpalit^{y}an̯ and Lut̯iɣ, *V_1 was sometimes lost, sometimes retained, and sometimes metathesized. South of these languages, short *V_1, except where it was metathesized, was ordinarily lost. Loss of short *V_1 is not exemplified here, since the Linŋit̯iɣ examples given above, to illustrate loss of *C_1, provide ample illustration of it.

Shortening of long *V_1

Long vowels, reconstructed only in initial syllables of Paman stems, became short in all Northern Paman languages. In some languages, they developed discontinuous reflexes flanking *C_2 -- i.e., a portion remained preceding the medial consonant or cluster, and a portion metathesized to appear as a corresponding glide following the medial. Examples are from Yinwum, first without the partial metathesis:

*n^{y}i·ri > iyi *nose*,
*Cu·ŋku > uwu- *long, far*,
*wa·t^{y}a > aṱa *crow*; and second with partial metathesis:
*yi· pa(r) > ipya-ṱ *south*,
*pu·la > ulwa *father's father*.

In Awŋṱim contrasts among long vowels have been partially neutralized -- all *V·$_1$ > /ə/. But where partial metathesis occurred, the quality of the original vowel can be determined from the portion which remains following the medial. Thus,

*Ci· puy > əβyuR *smoke*,
*ku· t^{y}i- > əɗwi- *two*,
*ŋa· ni > ənay *what*; but without partial metathesis, i.e., in cases where *V·$_1$ and *V$_2$ were homorganic:
*n^{y}i·ri > əRi *nose*,
*Cu·ŋku > əγu> *long, far*,
*ka· t^{y}a > əɗa- *mother*.

The cognate density matrix which follows is given to show, in a very tentative way only, the internal relationships of the Northern Paman languages as reflected by lexicon; the figures in the matrix are the numbers of basic meanings (body parts, motion and stance verbs, pronouns, etc.), out of a list of 100, which are represented by morphs shared as cognates by the members of each pair of Northern Paman languages in the sample:

	Mpa	Lu	Yin	Ṱya	Mam	Nt^{r}w	Nt^{r}a	Al	Lin	Ŋko	Ari	Mbi
Ura	51	48	35	47	46	46	46	45	41	43	35	28
	Mpa	80	60	53	51	52	50	51	48	45	40	40
		Lu	53	59	58	59	57	52	49	39	35	38
			Yin	40	41	42	42	43	40	46	48	47
				Ṱya	89	93	86	73	54	49	41	35
					Mam	91	83	69	60	47	38	35
						Nt^{r}w	86	73	63	49	41	35
							Nt^{r}a	80	74	50	44	36
								Al	87	52	45	36
									Lin	53	47	36
										Ŋko	51	45
											Ari	40
												Mbi

The average numbers of morphs shared as cognates by each language or dialect with the rest of Northern Paman are as follows: Uraδi shares an average of 43 cognates, out of the 100 item list, with the rest of Northern Paman; Mpalit^{y}aŋ̭ shares 52; Luṱiγ 52; Yinwum 45; Ṱyanŋayṱ 61; Nt^{r}waʔŋayṱ 61; Mamŋayṱ 59; Nt^{r}aʔŋiṱ 61; Alŋiṱ 59; Linŋiṱiγ 55; Ŋkoṱ 47; Aritinŋiṱiγ 42; Mbiywon 38.

The Northern Paman languages appear to share consistently more cognates among themselves than with any outside group. This corroborates the shared innovations in phonological change -- that the Northern Paman languages form a distinct subgroup is attested by vocabulary as well as by phonology.

A grammatical sketch of one of these Northern Paman languages now follows.

LINNGITHIG (Linŋit̯iɣ)

Linŋit̯iɣ, not individually numbered on Greenway's map, but included by him (following Tindale, 1940) in the term Winduwinda, numbered 20, was spoken southwest of the Embley River on the west side of the Hey River. This location, given by informants in 1960, does not agree with McConnel who, perhaps correctly, locates her Leningiti much farther south in the Winduwinda area (McConnel, 1939). Sharp's Lenngeti is located by him in the Alŋit̯ area on the northeast side of the Embley at the present site of Weipa Mission. It is probable that his informants gave him the term /laynŋit̯/ an alternant designation for Alŋit̯, and that his informants were of the latter group rather than Linŋit̯iɣ (Sharp, 1939). At all events, Linŋit̯iɣ and Alŋit̯ (Alngith) are dialects of a single language, sharing 87 percent of basic vocabulary. The number of speakers probably does not exceed half a dozen individuals now located at the missions of Aurukun and Weipa. The sources for Linŋit̯iɣ are field notes (130 pages) and tape recordings (2 hours) collected by Hale in 1960. A small amount of Linŋitiɣ has appeared in the published literature -- kinship terms (McConnel, 1950) and pronouns (Capell, 1956).

Phonology

p	ṱ	t	t^r	t^y	k	?
(b	ḓ	d	d^r	d^y	g)	
β	ð				γ	
m	ṋ	n		n^y	ŋ	
		l				
			r			
w		R		y		

i		u
æ		o
	a	

and possibly, nasalized: į, ą.

This inventory is extremely tentative. In particular, the phonemic status of the voiced stops in Linŋiṱiγ is highly questionable. Although Proto Paman stops regularly appear as voiced stops only after nasals in modern Linŋiṱiγ, it is not the case that voiced stops appear only after nasals in modern Linŋiṱiγ vocabulary as a whole; among the counter-examples are: wuguRuboṋ introductory part of initiation, adiwuR main part of initiation bRæ bad, luḓu whitefruit sp. Nor is it the case that only voiced stops appear after nasals; among counter-examples here are [mp] in olompolwa- to extract, remove; [ṋṱ] in kat^{y}iṋṱæ tree whose sap is used in binding spears, also, its sap; [nt^y] in ṱont^{y}iγ younger brother. It is not unlikely that counter-examples of the first type are borrowings into Linŋiṱiγ; except for bRæ bad, they are certainly not basic vocabulary. As for the second set of counter-examples, the presense of a morpheme boundary following the nasals may account for the absense of voicing in the stops, although it is not always possible to demonstrate that a morpheme boundary is actually present in the relevant cases.

The length of stems like olompolwa-, in a language having predominantly monosyllabic morphemes, requires explanation; the plausability of an explanation in terms of morpheme boundaries is therefore reasonable.

The above discussion has suggested that voiced stops may be allophones of the same phonemes as the corresponding voiceless obstruents. Another suggestion is possible, namely that voiced stops are members of the same phonemes as the voiced fricatives, which latter are, at least in part, descended from Proto Paman stops and clusters of nasal plus stop after long vowels (e.g., *wa•t^{y}a > aða *crow*, *n^{y}u•ŋka- > oɣa- to smell). Voiced stops occur after nasals which are homorganic with them, while voiced fricatives do not. However, in wuguRuboŋ̭, luḓu, etc., voiced stops occur intervocalically, as do voiced fricatives: koɣay *mother's older brother*.

Although it is extremely unlikely that all of the consonants in the chart above are phonemes, not enough is known of Linŋiṱiɣ to reduce the inventory in any easily justifiable way. For this reason, the distinctions indicated in the chart will be maintained in the transcription used in Linŋiṱiɣ examples throughout this sketch.

The Linŋiṱiɣ five-vowel system reflects a Proto Paman three-vowel system -- the expected Australian vowel system; the increase in vowels is due to phonemic split: *u > / u o/ and *a > /æ a/ . The five Linŋiṱiɣ vowels are clearly in contrast: /ṱin/ *thigh*, /ṱæn/ *spearthrower*, /ṱan/ *bit*, /ṱon/ *to me*, /ṱu/ *white clay*; / piy/ *father's mother*, / pæy/ *close*, / poy/ *you du*, / puy/ *we pl incl*; / mæ/ fire, / ma/ *person*; / lo/ *fresh water* lilly, /lu/ he, /læ/ mudshell, shell knife.

Linŋit̪̭iɣ morphemes are predominantly monosyllabic; many stems begin in consonant clusters. This feature, shared by other Northern Paman languages and by certain languages spoken farther south on the Peninsula, is rare for Australia generally. Nonetheless, Linŋit̪̭iɣ is closely related to languages whose phonology is quite normal for Australia -- i.e., with predominantly disyllabic (or longer) stems and without initial consonant clusters. The explanation for this rather striking difference is simple. In quite recent times, apparently, Linŋit̪̭iɣ and its close relatives have undergone the following sound change. Initial syllables in Proto Paman were reduced in Linŋit̪̭iɣ by loss of the initial consonant and, if short, by loss of the vowel as well (see above).

Word stress in Linŋit̪̭iɣ is predictable: the first vowel which is preceded by a consonant is stressed. Accordingly, the first vowel is stressed in words beginning in a consonant or cluster -- kápan short, ŋgóɗRo black -- but the second vowel in words which begin in a vowel -- ayóŋ I, alán sky, aɗá crow.

Terminal pauses are #, characterized by a preceding fall in pitch, and #//, characterized by a preceding fall and rise. As is commonly the case in Australia, the first clause in di-clausal sentences normally, but not invariably, has the intonation associated with #//: kun liŋgay Ræy ʔaṋ#// ʔaR kal t^{y}aRiy# let's grab them now, because they are fighting.

Conspicuous allophones occur for the voiceless obstruents /p t^{y} k/. These are fricatives [φ s^{y} x] alternating with aspirated stops [p^{h} t^{yh} k^{h}]:

/ puy/ [ɸúy ~ p^{h}úy] bone, / t^{y}a/ [s^{y}á ~ t^{yh}á] language, / ka/ [xá ~ k^{h}á] mouth. Lamino-dental / t̪/ , apico-alveolar / t/ , and apico-alveolar with trilled resease / t^{r}/ are normally aspirated: / t̪in/ [t̪^{h}ín] thigh, / toror/ [t^{h}óror] jabaru, / t^{r}on/ [t^{rh}ón] where. In one possible phonemic analysis -- perhaps the correct one -- the voiced stops occurring after homorganic nasals are also construed as allophones of these obstruents (see above).

Nasals are long initially and short elsewhere: / ma/ [m•á] person, / amay/ [amáy] will get up, / pam/ [pám] silent; / n^{y}a/ [n^{y}• á] meat, / an^{y}at^{y}/ [an^{y}ás^{y}] rubs, / t^{y}an^{y}/ [s^{y}án^{y}] flower.

The high rounded vowel / u/ is back [u] after velars and bilabials: / kun/ [k^{h}ún] now, / mbu/ [m• bú] urine. Elsewhere, it is central [ʉ]: / t̪u/ [t̪^{h}ú] white clay, / n̪u/ [n̪• ú] other, / t^{y}um/ [s^{y}úm] three, / lu/ [lú] he.

Nasalized vowels [į] and [ą] are recorded in a few stems where the nasalization cannot be accounted for in terms of a nasal consonant in the environment. In at least one such case, the nasalization is attributable, historically, to an original initial nasal which, like other Proto Paman initial consonants, was itself lost in Linŋit̪iɣ -- *maRa > ąʔą hand. Although this nasalization is rare, it is apparently unpredictable, and hence phonemic; there are sequences of similar specification in which the vowels are never nasalized -- aʔi- who (from *wa•Ri-).

Person Markers

Stem classes in Linŋit̪iɣ are nouns (N), verbs (V), and particles. Person marking is by independant stems, N_p, a subclass of nouns. Members of N_p, unlike other N, do not combine with the ergative suffix -- indicating the subject of a transitive sentence -- and do combine with a suffix indicating goal or object of a transitive verb. This feature is shared by most peninsular languages.

The N_p distinguishes three persons (first, second, third), three numbers (singular, dual, plural), and in non-singular first person there is a distinction between exclusive (without dual-plural distinction) and inclusive (with dual-plural distinction). The inventory of N_p is given below, first in actor form and then, in parentheses, in goal, dative-benefactive, and possessive forms, in that order:

ayoŋ (ni-ṋ, ṱo-n, ṱo-m) 1st sg,
liŋgay (li-ṋ, li-ŋg, li-nam) 1st du incl,
puy (pu-ṋ, pu-ŋg, pu-nam) 1st pl incl,
nan (na-ṋ, na-ŋg, na-nam) 1st non-sg excl.

t^{r}u (na-ṋ, ko-n, ko-m) 2nd sg,
poy (po-ṋ, po-ŋg, po-nam) 2nd du,
iRæ (iRæ-ṋ, iRæ-ŋg, iRæ-nam) 2nd pl.

lu (ŋo-ṋ, ŋo-n, ŋo-m) 3rd sg,
lawuy (lawu-ṋ ~ la-ṋ, lawu-ŋg, lawu-nam) 3rd du,
ʔaR (ʔa-ṋ, ʔa-ŋg, ʔa-nam) 3rd pl.

The possessive forms are themselves nominals, and may combine with various relational suffixes with which monomorphemic noun stems combine.

In combination with ergative and dative, the possessive suffix has alternants -mo- ~ -namo- (see also below in the section dealing with noun morphology): omin̯d̯að t̯omoð nan̯ t̯ay# my-ergative (t̯o-mo-ð) dog-ergative (omin̯d̯a-ð) will bite (t̯a-y) you-goal (na-n̯); ayoŋ n^{y}a mbwaʔ poy omin̯d̯ t̯omoγ# I (ayoŋ) will give (po-y) my-dative (t̯o-mo-γ) dog (omin̯d̯) meat (n^{y}a mbwaʔ); ayoŋ waʔt̯æmat^{y} t^{y}a t̯omoγ# I (ayoŋ) miss (waʔt̯æma-t^{y}) my-dative (t̯o-mo-γ) language (t^{y}a). These examples illustrate another feature of Linŋit̯iγ -- the ergative suffix attaches to both members of such complex nominals as omin̯d̯ t̯om my dog, while the dative attaches to the nominal as a whole and, hence, to the final member.

Verbs

In what follows, several verb-forming suffixes are listed and exemplified; then the tense-mood apparatus is treated; and finally, verb stem reduplication and the form of complex verbals are discussed.

The verb-forming suffixes listed below are each provided with a subscript numeral; this refers to the morphophonemic subclass of the resulting combination (see tense-mood suffixes).

-Ri$_{2}$- reciprocal (with V$_{t}$, transitives; the resulting verb is also transitive): t^{r}ayinað lin lawuy Ræ-Ri-n# two sea turtles have grasped one another (i.e., they are mating) here; animond^{r} iRæ t^{y}i-Ri-y# why are you pl looking at one another?; liŋgay nd^{r}æ-Ri-t̯ n̯d̯aʔað # let's spear one another with grass stems; ʔaR kilað t^{y}a-Ri-y# they pl are hitting one another with sticks. This suffix also combines with V$_{i}$, intransitives; where so combined the meaning is *dual* or *plural*: nan ina-Ri-t^y# *we excl used to sit (thus)*.

-t̯i$_2$- *reflexive* (with V$_t$; the resulting verb is also transitive): ayoŋ nd^{r}o-t̯i-n# *I cut myself*; loγ aγi-t̯i-y# *she is covering her face (in kin-avoidance)*; lu puln^{y}d^{y}an̯aδ aγi-t̯i-y# *she is covering herself with a blanket*.

-n̯ŋa$_1$- *causative* (with V$_i$; the resulting verb is transitive): ŋgiγaδ lawun̯ ama-n̯ŋa-n# *the flying foxes lifted (from: ama- to rise) them du up* (i.e., lifted two initiates up into the sky where they are now seen as dark areas in the milky way).

The four tense-mood suffixes distinguish three *realis* tenses, *future present*, and *past*, and a single *irrealis*, noncommittal with respect to tense. This latter is used not only as an *irrealis* in the usual sense (contrary to fact or conditional) but also as a quotative (in reporting events not actually witnessed), and even as a narrative past (in reporting historical events whether witnessed or not). Linŋit̯iγ verbs are in at least four morphophonemic subclasses according to their combination with one or another set of alternants of the tense-mood suffixes:

	V$_1$	V$_2$	V$_3$	V$_4$
future	-y	-t	-y	-y
present	-t^y	-y	-t^y	-n
past	-n	-n	-γ	-γ
irrealis	-ʔ	-t^y	-ʔ	-ʔ

In addition, at least one Linŋit̯iγ verb is entirely suppletive for these categories (*to eat, drink:* t^{y}im, n^{y}d^{y}ay, iyan, iʔa) and several verbs have vowels changes (i ~ a) in the stem (e.g., to speak, a V_2, with alternant tʸi- before -n past and tʸa- before the other suffixes).

Examples of these suffixes, in sentences, follow:

-y (with $V_{1,3,4}$) ~ -ṱ (with V_2) future (also used as imperative): ayoŋ naṋ ˀiṱiγ tʸi-y# I will see(V_1)you bye-and-bye; ayoŋ ˀiṱiγ li-ṱ# I will go (V_2) bye-and-bye; tʳu li-ṱ# you go!; ayoŋ ṋḓan ṋḓæ-y# I will sew (V_3) the messmate bark; ayoŋ nʸa ndʳo-y# I will cut (V_4) the meat.

-tʸ (with $V_{2,3}$) ~ -y (with V_2) ~ -n (with V_4) present: tʳu ani tʸi-tʸ# what do you see?; tʳonʸo tʳu li-y# where are you going?; aˀiy lu ṋḓan ṋḓæ-tʸ# who is sewing the messmate bark?; tʳu aniw ṋḓan ndʳo-n# why are you cutting the messmate bark?

-n (with $V_{1,2}$) ~ -γ (with $V_{3,4}$) past: ayoŋ ŋgoy tʸi-n# I saw a wallaby; tʳonʸo lu li-n#where did he go?; ṋḓan lu iˀiṋḓiγað ṋḓæ -γ# he sewed the messmate bark with cane; ayoŋ ṋḓan ndʳo-γ# I cut the messmate bark.

-ˀ (with $V_{1,3,4}$) ~ -tʸ (with V_2) irrealis: ayoŋ ani kay ŋgoy tʸi-ˀ# // nʸdʸi-ˀ kay ayoŋ# if I saw a wallaby or anything, I would spear (also V_1) it; ayoŋ kay li-tʸ#// nʸdʸi-ˀ lu niṋ# if I went, he would spear me; ayoŋ ŋgaˀ kay ṋḓan ṋḓæ-ˀ# I cannot sew the messmate bark; ayoŋ ŋgaˀ kay ndʳo-ˀ# I cannot cut it.

Reduplication in verbs marks usitative or continuative: omiṋḓað niṋ ṱaðatʸ# the dog always bites (from: ṱa- to bite) me; ŋgaˀ nan piβitʸ# we do not usually (or ever) come out (from: pi- to emerge, come out).

In monosyllabic stems, beginning in a voicelsss obstruent, reduplication is according to the following pattern:

CV- > CVC'V-

in which C' is a lenited counterpart of C, the initial obstruent:

pi- > piβi- to emerge,

ṱa- > taδa- to tie, bite (from Proto Paman *kat^{y}a- and *pat^{y}a- respectively),

ṱæ- > ṱæδæ- to beget,

t^{y}a > t^{y}aya- to hit (V$_1$), to speak (V$_2$),

t^{y}i- > t^{y}ayi- to see (with / a/ instead of expected / i/ in the first syllable),

ki- > kiγi- to give birth to, to bear, to take care of.

In monosyllabic stems beginning in a cluster or in a nasal, the syllable is repeated without modification:

nd^{r}a- > nd^{r}and^{r}a- to leave it, put,

ŋga- > ŋgaŋga- to hurt, to remove,

n^{y}o- > n^{y}on^{y}o- to kick, nudge.

In stems of more than one syllable, it is normally some non-initial syllable which is reduplicated -- the final syllable in such verbs as

aRaka- > aRakaγa- to hunker, and

kaRnaka- > kaRnakaγa- to close in, pen up, seclude:

and in a number of verbs ending in -ma- (possibly a suffix no longer productive) the syllable preceding this element is reduplicated with / m/ , presumably from -ma-, intervening:

olama- > olamlama- *to dance, play*,

ṱaṱoma- > ṱaṱomðoma- *to close the eyes, pray*,

waˀtæma- > waˀṱæmðæma- *to miss, bemoan*.

Complex verbals, resembling compounds of N + V, are common in Linŋiṱiɣ:

wiṱ pi- *to peek over (forehead* + *emerge*),

iṋi ṱa- *to sing (country* + *pronounce*),

iṋi ŋanʸa- *to pay attention (country* + *hear*),

iwoɣ mwiṱi- *to forget (ear* + *lose)*,

ma nima- *to become a man (man* + *become*),

ma ninŋa- *to make into a man*, *initiate (man* + *make, cause to be)*.

The formation of verbals with nima- *to become* and ninŋa- *to cause to be* is entirely productive. These verbals are not compounds in the usual sense, since their constituents may be reordered non-contrastively: ayoŋ ma niman# ~ ma ayoŋ niman# *I became a man*.

Nouns

In the discussion of nominals which follows, the derivational apparatus is treated first; then the relational suffixes are listed and exemplified; finally, compound-resembling constructions are discussed.

The two suffixes listed below participate in the derivation of relative clause nominals from sentences. The suffixes themselves are attached to the verb stem of the underlying source sentences from which the nominals are derived.

-ṋ object relative: iwaŋol ki-ṋ the one which (my) mother-in-law gave birth to (from: iwaŋo-l ŋoṋ kiʔ# (my) mother-in-law-ergative gave birth to him/her. This suffix has the alternant -ṋa- before ergative: iwaŋol ki-ṋa-ð ṱon ayi pon# the one which (my) mother-in-law gave birth to gave me food; mind^r ṱæ-n the one (my) mother's mother's brother begat (from: mi-nd^r ŋoṋ ṱæ-t^y# (my) mother's mother's brother - ergative begat him/ her.).

-ṱiγ subject relative: nd^{r}am ṱæ-ṱiγ one who has begotten girls (from: lu nd^r am ṱæ-t^y# he has begotten girls, i.e., has daughters); adiwuR aya-ṱiγ one who has passed through initiation (from: lu adiwuRŋon aya-t^y# he has passed through initiation); ṱon pam li-ṱiγ one who is silent toward me (i.e., an avoided kinsman, from: lu ṱon pam li-y# he/she goes in silence for me); n^{y}a ŋgoy n^{y}d^{y}i-ṱiγ one who spears wallabies (from: lu n^{y}a ŋgoy n^{y}d^{y}i-ti# he spears wallabies). The ergative suffix has an alternant -R in combination with these nominals; this suffix replaces the final / γ/ : nd^{r}am ṱæ-ṱi-R lu niṋ t^{y}an# the one who begat girls hit me.

There exists another mechanism for deriving relative expressions from sentences in Linŋiṱiγ. However, expressions of this second type, although they may exactly paraphrase nominals of the type mentioned above, are not themselves nominals in the same sense, since they do not combine with relational suffixes (ergative, etc.) normally associated with noun morphology, and they are never, so to speak, nominal constituents in sentences. They are, rather, loosely adjoined to the sentences to which they relate and are invariably separated therefrom by pause. The formative -k relative is involved in the formation of these expressions and is attached to some initial constituent of the underlying sentence, which latter remains unaltered except for the presence of this formative. As in: tʸum-k lu kiʔ one who gave birth to three, considered a paraphrase of the subject relative nominal: tʸum kiṱiγ; both are derived from such sentences as tʸum lu kiʔ# she gave birth to three. Further examples of these relative expressions follow:

į̦ʔą̦-k lu Rætʸ#// lu pulnʸdʸaṋaδaγiṱiγ# (as for) the one who grasps my hair, she covers herself with a blanket (It was the custom for the mother-in-law to grasp a shank of her son-in-law's hair to indicate her willingness that he take her daughter in marriage. Since she is an avoided kinsman, she covered herself in some way during the performance of this act.);

piγ nan oβaṋŋatʸ#// niṱaγ-k ŋoṋ kiʔ# father's mother we call her, she who gave birth to our father;

aδandʳ ṱomoδ-k lu oβaṋŋatʸ niγiγ ko# nan koγay oβaṋŋatʸ# (as for) the one my mother calls older brother, we(Linniṱiγs) call him mother's older brother;

aγi tʸiγiγ-k lu iʔitʸ# ngaʔ naŋg oγaṱaṋŋon ndʳatʸ# (as for) the yams that she digs up, she does not place them directly in front of us (for reasons of avoidance).

The following five suffixes combine with nouns. The resulting combinations are themselves nominals.

-nam possessive: ma-nam of a man, a man's; ndʳam-nam of a woman, a woman's. In combination with ergative and dative, the possessive suffix has the alternant -namo- (cp. Proto Paman *-namu possessive, with final *u reflected in Linŋiṱiγ by /o/.

-nʸdʸiγ *plural* (with *ergative*, -nʸdʸi-R): waṭ̯a-nʸdʸiγ *old men* (waṭ̯ay *old man*); poŋg-nʸdʸiγ *initiates*; ndʳam-nʸdʸiγ *women*; naṇ̯ ʔaR waṭ̯a-nʸdʸi-R adiwuRŋon ṭ̯oγ# *the old men put us into the initiation*. Several nouns have reduplicative plurals: aβopoγ *small pl, children* (aβoγ *small, child*); oγoγoR *long pl* (oγom *long*).

-yim (after vowels ~ -δim (after consonants) *possessed of, having*: mæ-yim *having matches, fire*; nʸa-yim *having meat*; alimb-δim *having a spear*; kiʔ-δim *having fat*.

-wanʸdʸandʳ (after vowels) ~ -anʸdʸandʳ (after consonants) *privative, lacking*: mæ-wanʸdʸandʳ *lacking matches*; liδ-anʸdʸandʳ *toothless*.

-tʸon *associated with an abundance of*: iβoR-tʸon *smokey, full of smoke*; tʸa-tʸon *talkative, full of talk*; awRi-tʸon *prickly, covered with spines*; mbwaʔ-tʸon *fleshy, heavy set*.

Four relational suffixes are treated in the following paragraphs. They are *ergative-instrumental*; *dative-benefactive-purposive*; *locative-allative*; and *elative*. The morphophonemics associated with the first two suffixes are somewhat complex; some listing will make this clear.

-R ~ -ndʳ ~ -l ~ -ŋg ~ -δ *ergative-instrumental*. The alternant -R replaces final /γ/ in some nouns: wayi-R niṇ̯ tʸan# *the big one* (wayiγ *big*) *hit me*; oyaṭ̯i-R lu ŋambay kiʔ# *the bird* (oyaṭ̯iγ *bird*) *laid an egg*; ŋga-R lu ŋoṇ̯ ndʳæn# *he speared him with a fighting spear* (ŋgaγ *multi-pronged fighting spear*); lu niṇ̯ ŋo-R pRulṭ̯æγ# *he wet me with water* (ŋoγ *water*). The alternant -ndʳ replaces final /y/ in some nominals, largely, but not exclusively, kinship terms: mi-nd^{r} t̯on pon# *(my) mother's mother gave it to me* (miy *mother's mother*); lu nin̯ ka-nd^{r} n^{y}oγ# *he kicked me with his foot* (kay *foot*). The alternant -l is restricted to a few nouns including ma *person*, iwaŋ *mother-in-law*, ani *what* (cp. Tjapukai, in which the cognate alternant -lu is limited to pama *person*): ma-l nin̯ n^{y}d^{y}in# *the man speared me*; ani-l lu nan̯ t^{y}an# *with what did he hit you?* The alternant -ŋg (cp. -ŋku in Tjapukai and generally widespread in Australia) combines with nouns other than ma *person*, ani *what*, ending in a vowel: aδ aδa-ŋg a-ŋg nin̯ t^{y}it^{y}# *the crow sees me*; lu nin̯ mæ-ŋg kayŋan# *he burnt me with fire*; animt^{y}u-ŋg lu omin̯d̯ t̯an# *the snake bit the dog*; t̯u-ŋg t^{r}u kun an^{y}at̯it̯# *you will rub yourself with white clay now*. The alternant -δ combines with nouns, other than those mentioned earlier in this paragraph, which in their unaffixed form end in consonants. Before -δ (and before -γ *dative*, etc.), these latter take on an incremental vowel. This vowel is /o/ after /m/ in nd^{r}am *woman*, and possibly a few others (cp. also the possessive suffix), and it is /a/ after other non-laryngeal consonants. After the laryngeal /ʔ/, the incremental vowel is identical to the one preceding /ʔ/: nd^{r}amo-δ nin̯ t^{y}an# *the woman hit me*; poŋga-δ lu ŋgiγ nd^{r}æn# *the initiate* (poŋg) *speared the flying fox*; lu nin̯ kila-δ t^{y}an# *he hit me with a stick* (kil); mbuʔu-δ t̯on ayi pon# *the European* (mbuʔ) *gave me food*; lu t^{y}iyiγ oδoʔo-δ iʔit^{y}# *she digs yams with a yamstick* (oδoʔ); lu nin̯ pRæʔæ-δ t^{y}an# *he hit me* with a stone (pRæʔ). (The assignment of the incremental vowel to the stem or to the suffix is by no means certain, and its assignment to the stem here is rather arbitrary. In some cases, it is known that the vowel belonged, historically, to the stem.) The ergatives of ko *that* and aʔiṋ *who* are respectively koʔol and aʔiy: koʔol niṋ tʸan# *that one hit me*; aʔiy lu naṋ tʸan# *who hit you?*

-nʸdʸ ~ -ng ~ -w ~ -γ *dative-benefactive-purposive*. The distribution of these alternants parallels that of the ergative in the following way -- -nʸdʸ corresponds in its distribution to -R, -ŋg to -ndʳ, -w to -l ~ -ŋg, and -γ to -δ: nan ṱontʸi-nʸdʸ nʸa pon# *we gave meat to younger brother* (ṱontʸiγ); lin mi-ŋg# *here (is something) for mother's mother* (miy); ayoŋ ma-w pon# *I gave it to the man*; ayoŋ nʸa-w liṱ# *I will go for meat*; tʳu poŋga-γ poy# *you will give it to the initiate* (poŋg).

-ŋon *locative-allative*: ayoŋ iṋi-ŋon liy# *I am going to camp*: aβoγ lu kil-ŋon mbaniy# *the child is climbing in the tree*. After nouns ending in /γ/, this suffix has an alternant -nʸon, alternating freely with -ŋon; the /γ/ is lost before -nʸon: iʔi-nʸon ~ iʔiγ-ŋon *in the antbed*; ŋo-nʸon ~ ŋoγ-ŋon *in the water*; lo-nʸon ~ loγ-ŋon *on its side*.

-mondʳ *elative*: aβoγ lu kil-mondʳ nʸdʸin# *the child fell from the tree*; ayoŋ iṋi-mondʳ liy# *I am going away from camp*. The directionals ŋgaδ *north*, awaR *east*, iβaδ *south*, and kaR *west*, *down* have special elative forms: ŋgaRil *from the north*, awaγal *from the east*, iβaRil *from the south*, kaRal *from the west*.

Compounds resembling N + N constructions in Linŋiṱiγ are of at least two types.

The possessive type (i.e., N_2 is a part of, belongs to N_1):

ṱin ara *thigh muscle (thigh + stomach)*,

mæ lan *flame (fire + tongue)*,

t^yaγ ṱa *tail tip (tail + eye)*,

t^yaγ ŋgil *tail base (tail + base)*

mæ ṱa *fire brand (fire + eye)*,

iraṋ wiṱ *river mouth (river + forehead)*,

ʔin iRi *sternum (chest + point)*,

alimb lan *spear point (spear + tongue)*,

The equasional type (i.e., N_2 is a kind of N_1):

n^ya ŋambay *egg (meat + egg)*,

n^ya t^raδ *nightfish(meat + nightfish)*,

ayi t^yiyiγ *yam (food + yam)*,

ayi ṱæm *small sugarbag sp (food + small sugar bag sp)*,

n^ya mbwaʔ *meat (meat + flesh)*.

The constituents of these nominals, especially of the second type, are reorderable in non-contrastive permutation: n^ya mbwaʔ ko aʔiy iyan# ~ n^ya ko aʔiy iyan mbwaʔ# *who ate that meat?*

Particles

Syntactically, the particles listed below belong to a number of quite distinct classes. They are similar to one another only in that they do not combine with any of the suffixes associated with nominal and verbal word morphology.

ʔand^r *thus*: t^ru ʔand^r inay# *you sit thus!*; ʔand^r lu kay t^yay# *he should say it thus*.

kun now: ayoŋ kun lit̯# I will go now; kun ʔaR mwit̯in# they have disappeared now.

kay irrealis (with irrealis in verb): ayoŋ kay t̯oʔ# should I have put it in, hidden it?; ayoŋ inʸdʸon kay nʸdʸiʔ# I could spear a kangaroo.

ŋgaʔ negative: ayoŋ ŋon̯ ŋgaʔ tʸin# I did not see him; ila nan ŋgaʔ t̯atʸ# we do not pronounce (his) name (i.e., of avoided kinsman); ayoŋ ŋgaʔ kay lilitʸ# I cannot run.

ʔat̯ admonitive (with present in verb): tʳu kaR tʸimbay# ʔaR nan̯ ʔat̯ kan̯ŋatʸ# you go inside, they might find you; tʳu ʔat̯ nʸdʸitʸ# you might fall (watch out).

kal because (follows first word of adjoined sentence): ayoŋ kun puyt̯iman#// oɣol kal linitʸ# I am tired, because I have walked far; Rætʸ lu ŋon̯ i̢ʔa̢ konʸdʸomwa#//lu kal kit̯iʔŋom t̯oɣay lu Ræy# she grasps his hair in that manner, because he will eventually marry her daughter; kilmondʳ nʸdʸin# lu kal in̯i ŋgaʔ ŋanʸatʸ# he fell from the tree, because he does not pay attention (to warnings).

ʔit̯iɣ bye-and-bye, soon: ayoŋ nan̯ ʔit̯iɣ tʸiy# I will see you bye-and-bye; yaw# ʔit̯iɣ liŋgay lit̯# yes, we will go soon.

mam only: ndʳam mam lu t̯æδæʔ# he has only had daughters.

tʳandʳ after all: ayoŋ tʳandʳ ayoŋ kun ndʳo̯t̯it# am I going to cut myself after all?

yoɣ don't (with future in verb): tʳu nin̯ yoɣ pRæʔæδ tʸay# don't hit me with a stone!; yoɣ tʳu lilit̯# don't run! yoɣ imamtʸa̯t# don't cry!

Lexical avoidance and ordinary usage and kinship

Like many other Australian languages, Linŋit̯iγ has a vocabulary, termed ka--oyaŋonoyaŋon, used in situations of respect and avoidance. Many, perhaps most, verbal and nominal concepts are represented by pairs of morphs, the selection of one or the other member of the pair being determined by the relationship (kinship) between the speaker and the addressee or between the speaker and some person being referred to whether or not the latter is actually present. The avoidance vocabulary is used where the speaking situation involves a kinsman to whom the speaker owes respect behavior -- as younger sister, older brother, mother-in-law, father-in-law, mother's younger brother, etc. -- whether this behavior entails strict avoidance or merely vicarious address. The ordinary vocabulary is used where the speaking situation involves kin who do not receive special respect behavior from the speaker -- as younger brother, older sister, mothers older brother, etc.

Examples of avoidance vocabulary are listed below; each item is followed in parentheses by its equivalent in the ordinary vocabulary.

n̯æt̯iγ	(ŋoγ)	water,
wukan̯	(mæ)	fire,
aδamb	(ayi)	vegetable food,
morδiγ	(n^{y}a)	meat, fish,
iran^{y}d^{y}iγ	(alimb)	spear,

n̯d̯æyim (t̯æn) *spearthrower*,

pRælt̯æn (oŋar) *rope*,

omaŋan̯ (ma) *person*,

aδambamloŋ (nd^{r}am) *woman*,

t^{y}arman̯ (aβoγ) *small, child*,

n^{y}in^{y}d^{y}iγ (wayiγ) *big*,

t̯ipŋa- (n^{y}d^{y}i-, nd^{r}æ-) *to spear*,

t̯iŋa- (t^{y}a-) *to hit*,

iyaδŋga- (nd^{r}o-) *to cut*,

olan̯ma- (t^{y}a-) *to speak*,

n̯æŋa- (t^{y}i-) *to see*,

aδoma- (ina-) *to sit*,

aβaRma- (ni-) *to stand*,

kiʔiδmbwi- (t^{y}im ~~) *to eat*, *drink*,

oγot̯n̯d̯a- (mbwi-) *to kill*.

Word morphology in avoidance usage is identical to that described for ordinary usage in the preceding sections. Sentences in avoidance vocabulary differ from sentences in the ordinary vocabulary only in the nouns and verbs: iran^{y}d^{y}iγ ayoŋ mbRærn^{y}ay# (alimb ayoŋ Ræy#) *I will grab the spear*; aδaRæm kun nin̯ mbRærn^{y}an# (i̜ʔa̜ kun nin̯ Ræn#) *she has grasped my hair*; t̯on wukan̯ wiy nd^{r}an̯ŋay# (t̯on mæ wiy iyay#) *bring me some fire hither*. Pronouns are the same in both vocabularies, by and large, except that the plural is used in second person respect address: iRæ t^{r}on^{y}o oγoŋt̯iy# (to, say, mother's younger brother), beside: $t^{r}u$ $t^{r}on^{y}o$ liy# (to, say, mother's older brother) where are you going?

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The Following Abbreviations Will Be Used

AA	American Anthropologist
ACLS . . .	American Council of Learned Societies
AES-P . . .	American Ethnological Society, Publication
AL	Anthropological Linguistics
APS-P . . .	American Philosophical Society, Proceedings
APS-T . . .	American Philosophical Society, Transactions
BAE-B . . .	Bureau of American Ethnology, Bulletin
BAE-R . . .	Bureau of American Ethnology, Report
CU	Columbia University Contributions to Anthropology
IJAL	International Journal of American Linguistics
IUPAL . . .	Indiana University Publications in Anthropology and Linguistics
JAF	Journal of American Folklore
JSAP	Journal de la Société des Américanistes de Paris
Lg	Language
RCPAFL . .	Research Center Publications in Anthropology, Folklore and Linguistics
SJA	Southwestern Journal of Anthropology
SIL	Studies in Linguistics
TCLP . . .	Travaux du Cercle Linguistique de Prague
UMPL . . .	University of Michigan Publications, Linguistics
UCPAAE . .	University of California Publications in American Archaeology and Ethnology
UCPL . . .	University of California Publications in Linguistics
VFPA . . .	Viking Fund Publications in Anthropology
WDWLS . .	William Dwight Whitney Linguistic Series

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